ASBPE MAGAZINE OF THE YEAR 2004

- Directly affected or not, IT managers are wary of Microsoft's product-delay propensity. PAGE 4
- Software vendors may be getting less aggressive about conducting audits. PAGE 11

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AUGUST 2, 2004 • VOL. 38 • NO. 31 • $5/COPY

Accenture IT System Under Fire in Ontario

Upgrade needed to calculate welfare benefit changes; inquiry sought into deal with vendor

BY MARC L. SONGINI

Questions about the cost, stability and usability of a controversial $213.8 million welfare payments system being used in Ontario continue to plague IT services firm Accenture Ltd., which developed the system for the province's Ministry of Community and Social Services.

In the most recent development, an Ontario legislator is calling on the province's attorney general to open a formal inquiry into the contract with Accenture, including an investigation of whether the province did sufficient due diligence before awarding it and whether there were any improprieties during the bidding process.

Accenture is currently billing the province nearly $1 million (U.S.) to tweak the mainframe-based system so it can calculate a 3% across-the-board

Ontario, page 12

ONLINE

Accenture presents its view of the project.

QuickLink a4840

One Year Later, IT Prepares for Next Disaster

BY LUCAS MEARIAN

Asiff Hirji, CIO at Ameritrade Holding Corp., said his business continuity plan for the company's Jersey City, N.J., data center worked flawlessly when the lights went out in much of the Northeast last August. Well, almost flawlessly. Ameritrade had 36 hours' worth of diesel fuel in its backup generators, and the main power grid wasn't fully restored for two days.

Ameritrade has since increased the amount of diesel fuel it keeps on hand, and Hirji has made other changes in response to the blackout. "We learned a bunch of things because in every plan,

Blackout, page 12

WHEN A VENDOR'S SOFTWARE FALLS SHORT IN A KEY AREA, OR IT'S BLOATED AND TOO EXPENSIVE, MAVERICK IT SHOPS BUCK THE TREND TOWARD OFF-THE-SHELF PACKAGES AND WRITE IT THEMSELVES.

ISABELLE CARDINAL

Roll Your Own

BY GARY H. ANTHES

Page 29

High-Tech Bunker Monitors Convention Security 24/7

Cold War facility equipped with new IT systems to ensure delegates' safety in Boston

BY DAN VERTON
FRAMINGHAM, MASS.

For the first time in 26 years, the Massachusetts State Emergency Operations Center — an underground bunker built during the height of the Cold War — last week began round-the-clock operations. The purpose was to ensure the security of the Democratic National Convention by means of newly deployed IT systems.

The facility, built in 1963 as the nation's first underground EOC designed to withstand a nuclear blast, last week gained the ability to communicate in real time with hundreds of businesses in and around Boston. It also initiated the use of a Web-enabled medical emergency management system.

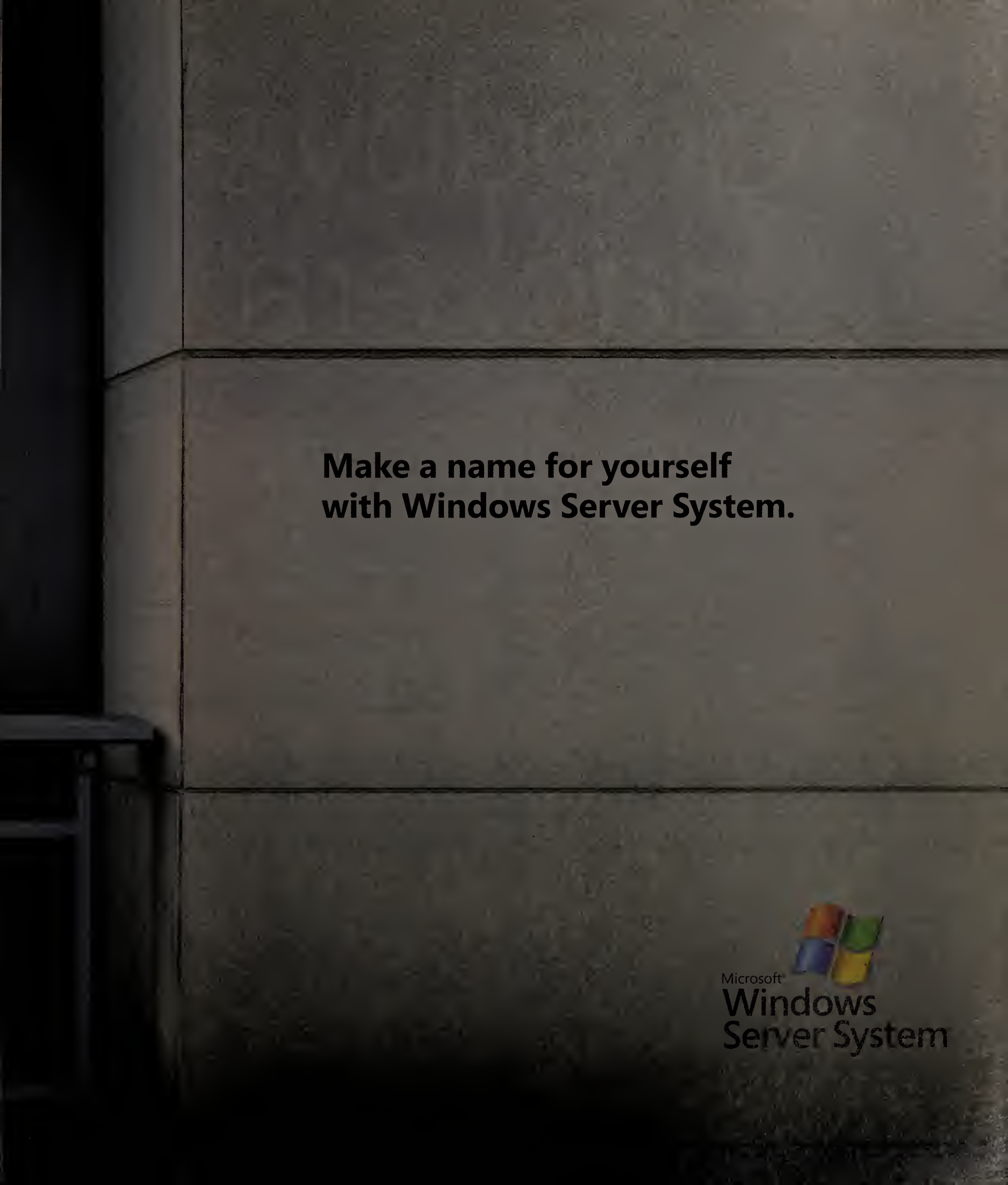
On July 29, the final and most security-intensive day of the convention, *Computerworld* was given access to the facility, located 30 feet below a nondescript plot of land on state Route 9. The EOC was aglow with wall-mounted large-screen displays showing real-time data feeds on poten-

DNC Security, page 43

MORE INSIDE

Dean and other Democrats sound off on e-voting security. PAGE 43

NEWSPAPER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Steven Bramson
Senior Systems Architect, *Motorola*

Microsoft Windows Server System makes Motorola's infrastructure easier to manage. Here's how: using Microsoft Systems Management Server and SQL Server, powered by Windows Server, Motorola conducts system inventory of their 65,000 desktops from one location, identifies necessary system updates, then deploys those applications across the enterprise automatically. It's software that helps you do more with less. Get the full Motorola story and a hands-on management tool at microsoft.com/wssystem

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08.02.04

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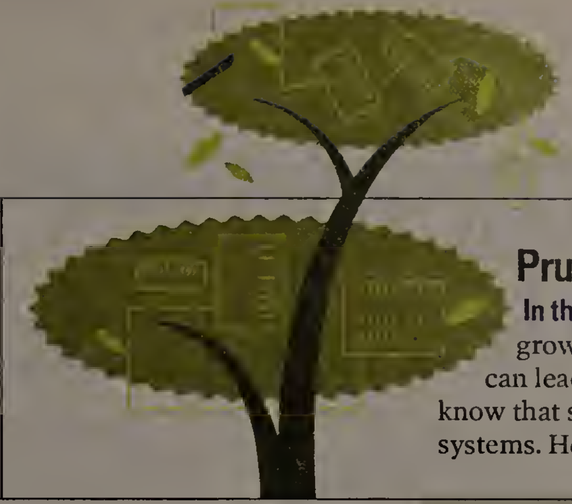

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In the Management section: IT applications grow like weeds, and unchecked growth can lead to sluggish performance. Smart CIOs know that selective pruning can reinvigorate your systems. Here's how. **Page 31**

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Battling Cybercrime: Stories From the Digital Front

SECURITY: This excerpt from *High-Tech Crimes Revealed* details how IT pros helped New York City police investigate a theft and pornography case. **QuickLink 47907**

A Matter of Life or Death

STORAGE: Consultant Steve Duplessie discusses the roles — both good and bad — that storage technology played in his cancer treatment. **QuickLink 48437**

A Bit of 'Geek Heaven'

MOBILE/WIRELESS: *Computerworld* Web developer Peter Smith got his hands on the new AirPort Express wireless access point and was surfing and streaming music before he knew it. **QuickLink 48417**

Blogs at the Convention

GOVERNMENT: The question "Are bloggers real journalists?" misses what's most interesting about new media in politics, writes online managing editor Sharon Machlis. **QuickLink 48473**

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AT DEADLINE

Microsoft Releases Patch for Browsers

Microsoft Corp. released an out-of-cycle software patch to fix three security holes in Internet Explorer, each given a severity rating of "critical." Microsoft, which typically issues patches monthly, urged users to install the new one as soon as possible because of potentially serious risks posed by the flaws. One hole has already been used in an attack called Download.Ject that was launched by hackers in June.

EDS Sees Bigger Loss on Navy Pact

Electronic Data Systems Corp. increased this year's projected loss on its $8.8 billion IT modernization contract with the U.S. Navy, citing order deferrals and lower-than-expected payments. EDS also said it has agreed to end another contract with an unidentified corporate user. EDS reported a second-quarter profit of $270 million on revenue of $5.24 billion, although it lost $16 million from an operating standpoint.

SCO Group Seeks to Revive Unix Name

Lindon, Utah-based The SCO Group Inc. confirmed that it has applied for a trademark on the name "Unix System Laboratories," which would revive the name of the former AT&T Corp. unit that once owned the rights to Unix. But The Open Group consortium said it will object "strenuously" to SCO's application on the grounds that it would conflict with the consortium's Unix trademark.

Short Takes

IBM said it's buying Cyanea Systems Corp., an Oakland, Calif.-based vendor of performance monitoring tools for Web-based applications. . . . HEWLETT-PACKARD CO. today will announce a disk array that can support SCSI and Serial ATA drives behind a single controller.

Microsoft Confirms More Product Delays

XP SP2, 64-bit Extended Systems slated for 2005

BY CAROL SLIWA

MARSHALING resources to finish off the security-focused Service Pack 2 for Windows XP is having a trickle-down effect on other Microsoft Corp. products.

The company confirmed last week that the first service pack for Windows Server 2003 is being delayed to the first half of 2005. Just weeks ago, the vendor had said it would be ready in the second half of this year.

Also being delayed to the first half of 2005 are versions of Windows Server 2003 and XP designed to run on Advanced Micro Devices Inc.'s 64-bit Opteron chips and Intel Corp.'s Xeon EM64T processors. Service Pack 1 for Windows Server 2003 forms the basis of the new Windows for 64-bit Extended Systems releases.

A Microsoft spokeswoman said the development cycle is driven by quality "rather than an arbitrary date" to ship products. However, Microsoft-today plans to release a beta for the AMD and Intel chip sets, according to Dennis Oldroyd, director of the Windows Server business group.

Several IT managers said the delays won't affect their companies, although some of them expressed concerns about the pattern that Microsoft is increasingly demonstrating. "It won't affect us, but if there are fixes that reflect additional security/error correction, I would like to have it now — not tomorrow," said Zeke Duge, CIO at Smart & Final Inc. in Commerce, Calif.

"We are always anticipating increased security fixes for Microsoft products. While we agree that a solid solution is better, and we are willing to wait, there are always concerns about weakness in the operating system," said Les McCarter, IT infrastructure and operations director at Hawaiian Electric Co. in Honolulu.

"I don't like the idea that new stuff that I was not waiting for is being sprung on me. More fluff, less meat.

ZEKE DUGE, CIO,
SMART & FINAL INC.

Charles Emery, senior vice president and CIO at Horizon Blue Cross Blue Shield of New Jersey in Newark, said he'd like Microsoft to start hitting its stated target dates because it would help his department to plan more efficiently.

So far, companies with exceptionally large databases have been the primary users of 64-bit applications, and the delay isn't expected to bother such companies because they've already sought out other 64-bit systems. Bob Crownhart, director of infrastructure at Premera Blue Cross, said the Mountlake Terrace, Wash.-based insurance company uses servers from Unisys Corp. to run its 64-bit SQL Server data warehouse.

Oldroyd said Microsoft has yet to see mainstream adoption of Windows for 64-bit systems but expects that to happen within 12 to 36 months. "We see a lot of evaluation from customers now," he said. "They want to figure out where they can use it."

One Microsoft product update that did ship last week was Service Pack 1 for Office 2003. The new edition bundles not only bug and security fixes but also feature enhancements for OneNote (such as improved integration with Office) and InfoPath (including enhanced support for managed code, digital signatures and form-sharing via e-mail).

Mixed Feelings

But users have mixed feelings about adding features in service packs, which have historically been restricted to bug and security fixes. Crownhart said he views it as a positive option to deliver pockets of features earlier to customers so they don't have to wait for major releases.

"If the features are fully tested, I see no reason to wait," Emery said.

But Robert Rosati, CIO at Werner Co. in Greenville, Pa., said he doesn't like the trend. "If Microsoft wants to add new features, they should call it something else — perhaps 'feature pack.' Service packs should just fix bugs and security issues," he said.

"I don't like the idea that new stuff that I was not waiting for is being sprung on me," Duge added. "More fluff, less meat." **48536**

Microsoft Scant on Longhorn Specifics

REDMOND, WASH.

Microsoft's chief financial officer, John Connors, last week talked up the "innovative pipeline" that will ensure that new products and technology keep rolling out in the future.

And "future" was the operative word at the annual financial analyst meeting here when it came to the next major version of Windows, because that was the extent of the details Microsoft provided about the final ship date for the release, code-named Longhorn.

"We've made really good progress in the last year. The next milestone for us is getting the beta out sometime next year, and that'll be the point at which the feature set and the schedule will really be pretty much locked down," said Bill Gates, Microsoft's chairman and chief software architect. "It's a release that's driven by the breakthrough features, and we'll have a strong sense of exactly what gets in and what the schedule looks like as we get that beta out sometime in the next . . . well, next year sometime."

Gates didn't say the beta would be released in the first half of next year, as the company had said prior to last week. If the beta should slip to the second half of 2005, that could have a snowball effect and push the product's final ship date beyond the 2006 target that the company has bandied about.

"It's a big release, and pulling together that many pieces in an integrated fashion, it's bigger than anything we've ever done," said CEO Steve Ballmer. "I always tell our people [that] relative to our scale, it's a lot more like Windows 1.0, maybe 3.0, than anything we've done before. It's a whole new development platform, and getting the whole new development platform done is harder than just making incremental improvements in user and administration features. We're working hard at it."

– Carol Sliwa

MORE ON LONGHORN
Microsoft says it won't outsource core Longhorn development overseas:
QuickLink 48533
www.computerworld.com

NASA, Navy Buy Massive Supercomputers

Market is growing for high-powered systems, IDC says

BY PATRICK THIBODEAU

U.S. government agencies announced purchases of two large supercomputers last week, including a massive 10,240-processor system for use by NASA that will likely be ranked among the world's most powerful computers.

The NASA system, from Silicon Graphics Inc., is based on Itanium 2 processors running Linux. The other system, an IBM supercomputer purchased by the U.S. Naval Oceanographic Office uses 2,944 Power4+ processors and runs IBM's AIX version of Unix.

The Navy declined to disclose the value of its deal with IBM. NASA's system will cost about $50 million, somewhat of a bargain price because Intel Corp. and SGI, among other vendors, will be studying the system as part of a research agreement, a NASA spokesman said.

The two sales may prompt IDC to slightly increase its high-performance technical computing market numbers in its next forecast, said Chris Willard, an analyst at the Framingham, Mass.-based research company.

IDC last week said that the market for systems used in research and technical computing grew 14% to $5.6 billion last year and will keep growing at an annual rate of 6.5% through 2008, when the market is expected to reach $7.6 billion. Commercial users are typically in the automotive, pharmaceutical, and oil and gas industries.

But the market for the largest systems, such as those purchased by NASA, is due to grow only 2% annually until 2008, from $771 million to $849 million. "There is only so much money the world is willing to spend on this class of computers," said Willard.

The NASA system, which will be used for space exploration and global warming research, is a very-large-node cluster, made up of 512-processor systems with shared memory and a single instance of the Linux operating system.

InfiniBand I/O technology is being used to connect the 20 512-processor systems that make up the supercomputer, which will be housed at NASA's Ames Research Center in Moffett Field, Calif. It's expected to be operational in November.

MAAS DIGITAL/CORNELL/NASA/JPL

ONE APPLICATION of the SGI supercomputer at NASA is a 36GB high-definition anitmation of a Mars mission.

The Navy's IBM supercomputer is a cluster of 368 IBM eServer p655 systems. It's slated to go online in September and will allow the military to run larger and more detailed weather and ocean models, including one that depicts the earth's surface. The supercomputer will also be able to handle more disparate data generated by buoys, satellites and other sources, said Steve Adamec, director of the Naval Oceanographic Office's Major Shared Resource Center at the John C. Stennis Space Center in Mississippi.

U.S. government agencies tend to buy a variety of supercomputing systems, and Stennis Space Center, where the IBM system will be housed, is indicative of that diversity. In addition to running older IBM systems, the center has systems made by Cray Inc., Sun Microsystems Inc. and SGI. **Q 48525**

Sun Aims to Attract HP-UX, Windows Users to JES

Some users hail pricing model; others not so sure

BY PATRICK THIBODEAU

In an effort to broaden its reach as a middleware vendor, Sun Microsystems Inc. plans to make its Java Enterprise System available on Windows and Hewlett-Packard Co.'s HP-UX by the end of the year.

Sun's pricing model for the integrated software stack of 14 back-end services — $100 per employee per year — is particularly appealing to companies that provide hosting services to large numbers of external users. Canada's Saskatchewan Telecommunications Holding Corp., which has about 3,800 employees, is one example.

Curt Smith, general manager of the Regina-based telecommunications provider, said the pricing model allows him to provide JES-based services such as messaging and calendaring functions to external customers on a hosted basis, without having to pay additional software-licensing costs to Sun. Smith's cost remains fixed based on the number of employees at his company, so external customers can tap into JES services at no extra charge.

Smith said that his company was attracted to JES because it provided integrated and tested services, and the pricing model is an added benefit because it fixes his costs. "The price works for us, and the model works for us," he said.

But that isn't true for the *The Atlanta Journal-Constitution*. The newspaper is a Sun hardware shop but is using BEA Systems Inc.'s Web applications server.

Bruce Bowles, a technology manager at the newspaper, said he met with his Sun representative about six months ago and discussed JES. Bowles said he asked how the vendor's per-employee pricing would account for all of his part-time workers, who bring his workforce total to about 10,000 people, but he never got an answer.

A Sun spokeswoman said that JES pricing applies only to full-time employees, not part-time or contract workers.

The pricing model for the bundled applications "is a great idea, but that pricing model is not necessarily going to work for every business," said Bowles. Regardless, he added, "I'm not going to replace my investment in BEA."

JUST THE FACTS

Java Enterprise System

- **STACK INCLUDES:** Web and application services, network identity services, portal services, communication and collaboration services, availability services, security services
- **SUPPORT:**
  Current: Solaris on Sparc, Opteron and Xeon, Linux
  By end of year: Windows, HP-UX on PA-RISC
- **PRICE:** $100 per employee per year

Analysts said Sun had no choice but to extend its JES model to include support for Windows and HP-UX. The stack currently operates on Solaris and Linux systems, and Sun is considering making JES open-source.

"Sun needed to port to other operating systems if they were ever going to be a serious contender in the middleware space," said Shawn Willett, an analyst at Current Analysis Inc. in Sterling, Va. The ability of JES to operate on other systems is "pretty much a requirement for large corporate sites, who can't all be running Solaris everywhere," he said.

One JES user, Fotis Karonis, director of IT and telecommunications at the Athens International Airport in Greece, is running Solaris systems on 64-bit Sun hardware. Karonis said he sees both advantages and disadvantages in running JES on Wintel systems.

Advantages include lower-cost hardware, leveraging the existing Windows expertise of systems administrators, and uniformity in hardware and operating systems administration, he said. But among the disadvantages are duplicate technical support in running JES in two environments and Windows security concerns, Karonis added.

Karonis said the stack is meeting his expectations. "JES offers a rich and open development environment where we can integrate most of our airport-specific applications and systems," he said. Regarding making JES open-source, Karonis didn't seem to think it would matter. "JES is already open enough for developers," he said.

Whether Sun's pricing model makes sense for users depends on a number of variables, including which applications they use in the middleware stack, said Thomas Murphy, an analyst at Meta Group Inc. in Stamford, Conn. If an IT shop is interested only in Web development tools, for instance, then it may want to go with IBM's WebSphere or use the open-source Apache Tomcat.

In any case, Sun's JES pricing model does "shake up the market" and is something IT managers should consider, Murphy said. **Q 48521**

BRIEFS

Insurer Hands Off Apps Work to CSC

Zurich Insurance Co. said it's outsourcing application development and maintenance work in the U.S., the U.K., Switzerland and Germany to Computer Sciences Corp. About 1,600 IT workers will be shifted to CSC late this year and in 2005 as part of the deal, which is valued at up to $1.3 billion over seven years. Last fall, Zurich outsourced PC support to IBM and signed Equant NV to manage voice and data networks.

Nortel to Announce Additional Cutbacks

Nortel Networks Ltd. plans to announce more cost-cutting actions later this month, along with preliminary financial results for this year's first and second quarters. Bill Owens, president and CEO of Brampton, Ontario-based Nortel, said he still expects revenue to grow faster than the networking market this year. But the company isn't meeting its operating cost targets, Owens added.

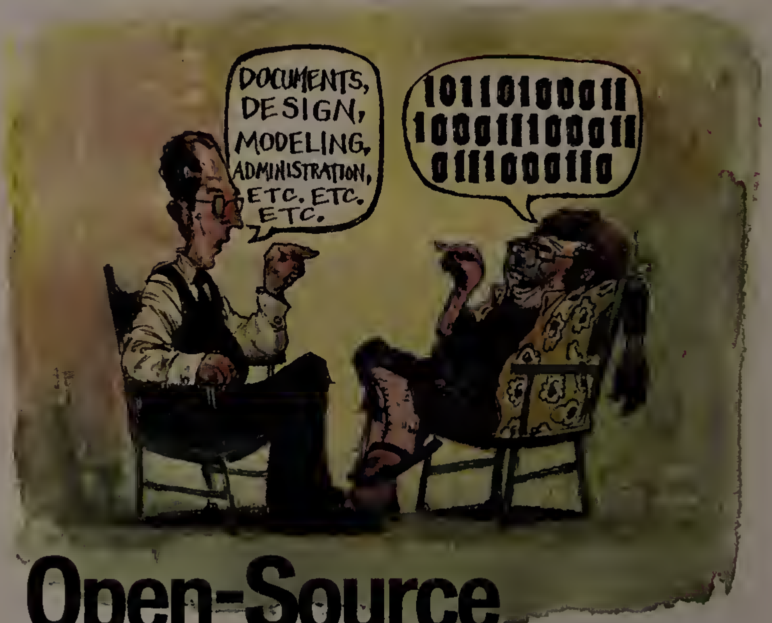
Design Snafus Must End, Says Intel CEO

In an internal memo, Intel Corp. CEO Craig Barrett wrote that the chip maker needs to do a better job of bringing products to market. The memo, dated July 21, followed a series of design problems and delays. "This is not the Intel we all know, and that is not acceptable," Barrett wrote. But in another delay, Intel said it's postponing shipments of a 4-GHz Pentium 4 by up to three months, to the first quarter of next year.

Short Takes

MICROSOFT CORP. released a second beta-test version of its delayed SQL Server 2005 database. . . . The European Union's second-highest court set a hearing date of Sept. 30 on Microsoft's request that antitrust remedies imposed in March by European officials be suspended while it appeals.

[ON THE MARK | HOT TECHNOLOGY TRENDS, NEW PRODUCT NEWS AND INDUSTRY GOSSIP BY MARK HALL]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MATTHEW FAULKNER

Open-Source Boosters Lack . . .

. . . a full IT vocabulary when chatting up CIOs. That's what Robert Lefkowitz told an audience of nearly 2,000 hackers at the O'Reilly Open Source Convention (Oscon) in Portland, Ore., last week. Although Lefkowitz is vice president of enterprise data, systems and architecture at AT&T Wireless Services Inc. and dresses like a natty Wall Street executive, he's got lots of credibility with the open-source crowd, given his history with open-source at AT&T, Merrill Lynch and elsewhere. Plus he's got a cool online handle, R0ML (pronounced "Rommel"), that his admirers used relentlessly at Oscon. He argues that when a CIO is thinking about the "source" of a corporate application, he's not just considering endless screens of C++, Java or other languages typed by a programmer. The CIO is also thinking about the application requirement documents, modeling work, validation procedures, testing, administration and much more. He cites the book *Software Assessments, Benchmarks, and Best Practices*, by Capers Jones (Addison-Wesley Professional, 2000), which shows that less than one-fifth of an application's effort is made up of code. "*Source* doesn't mean code," says Lefkowitz. "In fact, the whole movement in software engineering is away from code to more abstract thinking about the application." In effect, he says, a CIO looks at an application like a meal, the preparation of which involves a kitchen, utensils, a recipe and ingredients. But all the open-source advocates see are the ingredients. Lefkowitz suggests that if open-source proponents can learn the CIO's lingo, they will better advance their cause in the data center.

18% Portion code contributes to a business application, says author Capers Jones

Novell's Enterprise Server 9 Draws . . .

. . . big crowds of hackers at Oscon. They wanted to see what will likely be the first release of an enterprise-class server software with the Linux 2.6 kernel. As yet unannounced, but widely expected to ship in the next two months, Enterprise Server 9 for multiprocessor Intel-based machines gets oohs and aahs from Linux lovers for its nonuniform memory access technology, which makes the computers exceptionally fast. Linux aficionados also give high marks to the stability of the beta now in the field and the improved security features. Novell Inc. in Waltham, Mass., is certifying third-party software on its SUSE Linux 2.6 release. Once enough applications have been blessed, expect some big news.

2,000 Number of tests on Linux kernel 2.6, says IBM

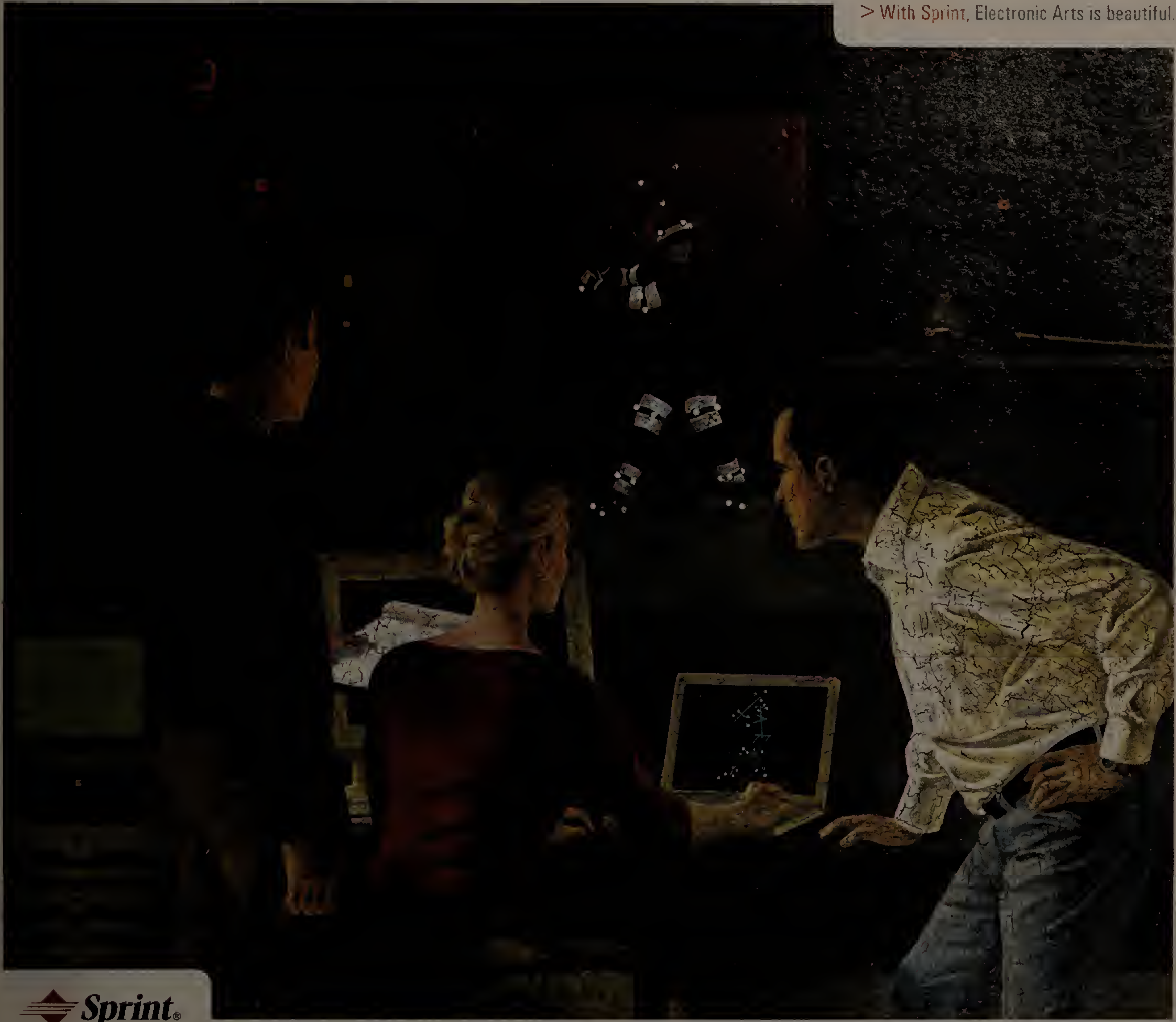
Microsoft Pushes Middle Ground . . .

. . . in the open-source debate. Jason Matusow, director of Microsoft Corp.'s shared-source initiative, points to two trends that he hopes will bring a happy middle ground for IT users who like the idea of open-source products but still worry about who's ultimately responsible for the code. First, Matusow says, virtually every major vendor, including his company, is contributing to the open-source movement. He claims that Microsoft's shared-source programs and open-source work so far are "just the tip of the iceberg" and that much more will be coming. He also gives credit to IBM, Sun Microsystems Inc., Apple Computer Inc., RealNetworks Inc. and others that are, to varying degrees, releasing proprietary source code into the hands of users. The second trend he highlights is that open-source developers such as MySQL AB, Red Hat Inc., Zend Technologies Ltd. and others are building profitable businesses around specific open-source products. He calls the two-pronged trend a "move to the middle where the value is" for both users and vendors. He does acknowledge that it's IT's "voting with their pocketbook" that's forcing this shift to the middle ground by vendors. So vote early and often, if you want to find more goodies in the middle.

Wyse Readies Linux Thin Client . . .

. . . based on the hot new 2.6 kernel of the operating system. The 5150SE from Wyse Technology Inc. will ship early in Q4 and cost you a mere $399. It's the first thin client for the new Linux kernel, and it's the first using a chip set designed for thin-client Linux from Advanced Micro Devices Inc., claims Mike DeNeffe, a senior director at Wyse. DeNeffe says the Linux thin-client market is a "growth opportunity" for the company, and the 5150SE will be added to its other Linux thin clients, the 5455 and 5125. The new machine runs twice as fast as its predecessors and improves video performance, according to the San Jose-based company. Junaid Qurashi, a Wyse senior product manager, boasts that his company has added thin-client features such as stateless configuration to the Linux 2.6 kernel. That means IT administrators don't have to set up each machine on the network because each 5150SE autodiscovers its server and configures itself. 48506

Wyse 5150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MCI Ups Performance Pledges to Retain Users

Guarantees faster transmissions on IP network as possible buyout bid looms

BY MATT HAMBLEN

MCI INC. last week announced new performance guarantees for users of its IP network, another in a series of network services enhancements that the company is promising to its business customers.

The continuing effort to boost customer confidence in MCI's services comes as the company faces a possible buyout bid by Leucadia National Corp. On July 12, MCI said it had received a notice from Leucadia that the New York-based investment firm intends to seek clearance from federal authorities to buy a majority of MCI's common stock. Leucadia officials wouldn't comment about the company's plans last week.

Colleen Boothby, an attorney who represents dozens of large companies in contract negotiations with telecommunications carriers, said the MCI users she works with don't appear to have any plans to abandon the vendor. But, she added, some do wonder if the buyout proposal could spell the end of MCI as a separate company, which could result in less competition for network services contracts.

"The big end-user concern is whether . . . MCI and AT&T will exist in a year or two," said Boothby, who works at Levine, Blaszak, Block & Boothby LLP in Washington. "Every day, it looks more likely that they'll be gobbled up." She said MCI's ability to keep service levels high will determine whether the company, which emerged from Chapter 11 bankruptcy protection in April, can retain customers in the coming months.

Nortec Inc. in Providence, R.I., has another year left in a two-year, $4 million contract under which MCI provides network services to about 10,000 employees at 35 locations in the U.S. Gary Rosenberg, director of telecommunication services at Nortec, said MCI's service quality remained high throughout the bankruptcy process.

Rosenberg added that he has seen a marked improvement in MCI's billing, which previously was problematic. But the Leucadia move "puts MCI in play, and eventually somebody will gobble them up," he said.

Getting Better

An IT manager at a large MCI customer in the transportation field said the possible buyout "doesn't have us too worried right now." The user, who asked not to be named, said he experienced service problems with MCI last year but has seen "a pretty good turnaround" in recent months. The improvement has been encouraging enough for his company to consider giving MCI part of its future network services business, he added.

MCI's new Internet service guarantees include reductions in transmission latency worldwide, with a guarantee of 20% faster transmission in North America, said Ralph Montfort, the company's director of Internet access services. MCI is also guaranteeing that Internet service will be 100% available, with North American users automatically receiving credits for free service time if outages occur (see chart).

MCI's business-related IP services revenue declined 18% last year, according to Steven Harris, an analyst at IDC in Framingham, Mass. But he said MCI's Internet service-level agreements are among the most impressive being offered by network operators. "SLAs are an awful area that carriers are trying to improve," Harris said. 48504

MCI's new Internet service guarantees:

- **Network latency** has been reduced globally, with round-trip transmissions in North America now averaging 45 milliseconds or less between hub routers.
- **Packet delivery rates** for ensuring that network traffic reaches its intended destination will be 99% in all areas and 99.5% in some regions.
- **Internet access** will be 100% available for services ordered and provisioned by MCI, with users getting a one-day credit for each hour of network outage.

Banks Balk at Info-Sharing Provision in Privacy Law

Claim compliance with Calif. SB 1 will raise IT costs

BY JAIKUMAR VIJAYAN

Banks doing business in California are planning to appeal a recent federal court decision that lets the state enforce tough new provisions related to the sharing of customer information with affiliates.

The provisions are part of California's Financial Information Privacy Act, known as SB 1, which went into effect July 1. The law, which is hugely unpopular among financial service providers, requires banks to give customers the opportunity to opt out of cross-marketing programs in which their information is shared with affiliates such as mortgage and credit card companies.

Most financial companies in the state had expected that the affiliate sharing provisions in SB 1 would be preempted by existing guidelines in the federal Fair Credit Reporting Act of 1996, under which no such permission is required.

An attempt by the American Bankers Association, the Financial Services Roundtable and the Consumer Bankers Association to legally block the affiliate sharing provisions of SB 1 was rejected by a California Federal District Court judge in late June.

"We were certainly disappointed by that ruling," said Harvey Radin, a spokesman for Bank of America Corp. in New York. "The decision really makes it harder for our customers to do business with us." IT expenses associated with maintaining and processing customer preference information could contribute to increased costs, he added.

Under the law, companies have to send notices to all California-based customers and give them a chance to opt out of affiliate sharing. They must wait 45 days for replies. During that time, customer records have to be quarantined and can't be shared with others. Companies that share information with nonaffiliated third parties also need to get separate opt-in permissions.

Compliance Headaches

From an IT standpoint, complying with the requirements means creating new database tables for recording information about when notices were sent out, when they were returned and a customer's preference, said Arshad Noor, CEO of StrongAuth Inc., an identity and compliance management company in Cupertino, Calif.

It also means putting policies in place "that spell out what business divisions need to do and a process for ensuring that they check this table before sharing any information with affiliates" and third parties, Noor said.

"Companies are making a huge effort to comply with the law. It caught a lot of them by surprise," said Fritz Elmendorf, vice president of communications at the Consumer Bankers Association. A lot of that group's members have "simply shut down cross-marketing activities" because they have not yet gone through the process of sending out notices, he said.

Notating the opt-out and opt-in selections on customer files "becomes complicated, time-consuming and expensive," given the separate systems that banks often maintain for mortgages, credit cards and deposit accounts, Elmendorf said. "Mergers often complicate this and compound it where there may be multiple systems in multiple states," he said.

"We remain fully confident that we will prevail on appeal," said Tom Dresslar, a spokesman for California Attorney General Bill Lockyer.

"I can understand why [banks] were taken by surprise," Dresslar added. "They've been on a long winning streak on these kinds of issues." 48524

JUST THE FACTS

California's SB 1 Privacy Act

- Took effect July 1, 2004.
- Is designed to give bank consumers notice when their personal information is being shared with bank affiliates and third parties.
- Allows consumers to opt out of such info sharing.
- Provides for fines of up to $2,500 per violation.

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Mobile Devices Move Wi-Fi, Cellular Closer to Convergence

HP, Motorola products let users roam between networks but have limitations

BY BOB BREWIN

Wi-Fi and cellular network technology finally tied the knot last week, as Hewlett-Packard Co. and Motorola Inc. each introduced mobile devices that can roam between the two technologies. But both products have limitations.

Motorola said its CN620 phone can function as a voice-over-IP phone on Wi-Fi wireless LANs and as a cellular phone on Global System for Mobile Communications networks. The CN620 also supports data communications on both networks, Motorola said, adding that handoffs between the Wi-Fi and GSM networks will be handled by technology developed by Avaya Inc. and Proxim Corp.

HP and T-Mobile USA Inc. announced an iPaq handheld computer that can roam without dropping a signal between T-Mobile's 802.11b Wi-Fi hot spots and GSM cellular data network. The iPaq 6315 can also operate as a voice phone on the T-Mobile GSM network, but it works only in data mode when used in both Wi-Fi and GSM modes.

Rick Roesler, vice president of handheld marketing at HP, said his company and Bellevue, Wash.-based T-Mobile view the development of a combined Wi-Fi/GSM device that would support VoIP as a "very interesting" possibility. But he didn't disclose specific plans for offering such a product.

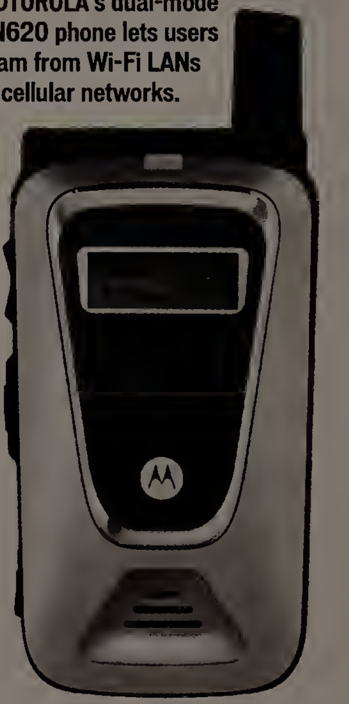
No 802.11b Support

Motorola's new phone also has a potential drawback. The CN620 doesn't support the well-entrenched 802.11b Wi-Fi standard, meaning users would be required to install WLAN equipment based on the newer 802.11a technology.

Several IT managers hailed the potential of a combined Wi-Fi/cell phone, but they balked at the cost of installing new WLANs to support the CN620.

For example, FedEx Corp. has already deployed an extensive 802.11b infrastructure at its facilities worldwide. Ken Pasley, director of wireless business development at FedEx, said he doesn't see any cost justification for upgrading the Memphis-based company's WLAN infrastructure to gain the savings on cellular time that the CN620 promises when used as a VoIP phone.

MOTOROLA's dual-mode CN620 phone lets users roam from Wi-Fi LANs to cellular networks.



"It's hard to spend yourself into savings," Pasley said, noting that the cost of using cell phones continues to go down.

Milton "Mac" McClurkan, CIO at Bronson Healthcare Group Inc. in Kalamazoo, Mich., said he wants to take advantage of combination devices that can operate on his company's extensive WLANs, which are based on a mix of 802.11b and 802.11g technology. Therefore, McClurkan said, he views HP's new iPaq as a "more significant" product than the CN620.

A Motorola spokeswoman said the company built its combination phone around the 802.11a standard, which supports raw data rates of up to 54Mbit/sec. in the 5-GHz band, because it has more capacity for voice phone calls than 802.11b does. The latter technology provides data rates of up to 11Mbit/sec. in the 2.4-GHz band. **48522**

Red Hat to Launch Java App Server

Vendor extends its reach beyond Linux

BY JAMES NICCOLAI

Red Hat Inc. plans to release its first Java application server at the LinuxWorld conference in San Francisco today, broadening its business beyond the Linux operating system, industry sources said.

Red Hat Application Server will be sold on a subscription basis with services and support, under a pricing model similar to what Red Hat uses for its Linux operating system, according to the sources. Pricing is likely to also be announced today.

The software is based on Jonas, or Java Open Application Server, an open-source application server developed by the ObjectWeb Consortium, a France-based nonprofit group. It incorporates The Apache Software Foundation's Tomcat Java servlet engine and Struts, a software framework for building Java Web applications, the sources said.

Raleigh, N.C.-based Red Hat said last August that it would work with ObjectWeb to offer a Red Hat-branded application server. A beta version was released in December. Representatives for Red Hat and ObjectWeb declined to comment last week on any upcoming announcements.

Red Hat Application Server is expected to compete with proprietary offerings from the likes of BEA Systems Inc., IBM and Oracle Corp.

One effect of open-source products has been to apply pricing pressure on proprietary vendors, analysts have said. Sun Microsystems Inc., which has struggled to boost its middleware business, offers a low-end version of its application server for free.

Red Hat said last year that it would also release clustering software to link groups of servers and programming tools based on the open-source Eclipse project. Along with the application server, the products comprise what it calls its Open-Source Architecture, a collection of server software that runs on its Linux operating system.

ObjectWeb was founded in 2002 to foster the development of open-source middleware. Along with Red Hat, its members include Bull SA, France Telecom SA and the French National Institute for Research in Computer Science and Control. **48517**

Niccolai writes for the IDG News Service.

LINUXWORLD PREVIEW

Desktop Linux will be a major focus at this week's event:

QuickLink 48480
www.computerworld.com

Dell, IBM Tap Intel 64-bit for Servers

It will be raining servers today if IBM and Dell Inc. follow through on expected announcements of new systems built around Intel Corp.'s x86 processors with 64-bit extensions.

The rack and tower configurations that the companies plan to detail will differ in serviceability and manageability. But from the perspective of speed and pricing, "the one-to-four-way Intel architecture models are commoditized," said John Enck, an analyst at Gartner Inc. in Stamford, Conn. "If you try to make a decision on that basis, it really doesn't matter."

Dell today is expected to announce four dual-processor servers based on Intel's Xeon processor with 64-bit extensions. The systems will include OpenManage 4, an upgraded version of Dell's management system that adds remote administration capabilities. Other system enhancements include PCI Express technology and up to 8GB of Double Data Rate 2 memory.

Two rack-mounted servers, the PowerEdge 1850 and 2850, are available now, with pricing starting at $1,799 and $1,899, respectively. The two tower systems, the PowerEdge 1800 and 2800, will be available in October.

Meanwhile, IBM plans to announce eight systems based on Xeon and Pentium processors with 64-bit extensions. IBM's offerings feature a mainframe technology called calibrated vector cooling that optimizes air flow to allow its servers, including its thinnest (1U, or 1.75-in. high), to meet the requirements of application server environments. They also include IBM's fourth-generation Light Path Diagnostics tool, company officials said.

The IBM servers will be released over the next eight weeks. Pricing for a two-way, 2U rack-mounted server starts at $2,339.

– Patrick Thibodeau

Pace of Vendor Audits Said to Be Slowing

Users increase self-auditing of software licenses; vendors seek to avoid conflicts

BY THOMAS HOFFMAN

Over the past few months, Microsoft Corp. and other software vendors have become less aggressive about threatening customers with audits to gauge whether they're complying with their license contracts, according to analysts.

That's largely because users have become more diligent about conducting self-examinations with license-tracking tools to defend themselves against audits, IT managers and analysts said last week. In addition, vendors such as Microsoft have shifted toward resolving licensing issues with users instead of running the risk of jeopardizing customer relationships by doing audits.

"We're not feeling any direct pressure from vendors, but you hear stories from people whose companies have gotten dinged for a couple of hundred thousand dollars," said Clayton Bretschneider, a network engineer at Stiles Machinery Inc. in Grand Rapids, Mich. "So with that in the back of your mind, I think it's forcing the record keeping in our IT department to be a lot tighter than it was several years ago."

Stiles, which makes wood-panel saws and other equipment, last year began using a Web-based tool developed by CDW Corp. to track its use of software products, including Microsoft Office. The tracking software is hosted by Vernon Hills, Ill.-based CDW, and Bretschneider said he can access information about his licenses via a Web browser.

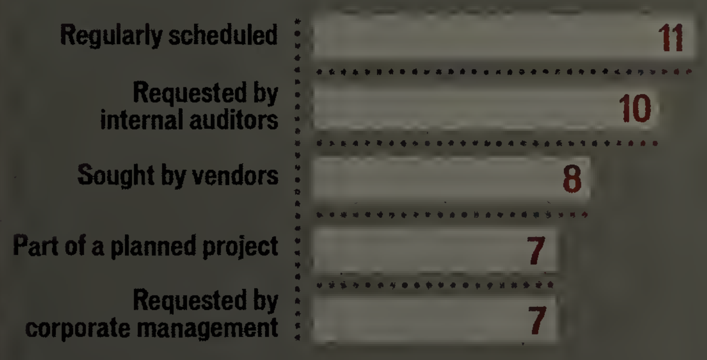
According to a report that was issued July 23 by Forrester Research Inc., only two of the 41 IT executives who responded to a March survey said they had seen a decrease in the number of audits conducted at their companies during the previous 12 months. Thirteen said there had been more audits at their companies.

But the survey also found that more audits were being driven by internal factors than by vendors (see chart). "We were getting indications during the budget cycle in the fourth quarter of 2003 that there was heavy activity in audits [by vendors]," said Forrester analyst John Rymer. "But the survey found that there isn't a problem."

At a conference held by Gartner Inc. in June 2003, attendees said enterprise software vendors were increasingly threatening users with audits to help make up for reduced spending on new licenses due to the sluggish economy [QuickLink 39183]. "At that time, I was getting quite a few customer calls about audits, and it's only in the last three or four months that activity has started to drop off," said Gartner analyst Jane Disbrow.

Audit Trail

Top drivers for software license compliance audits, by the number of survey respondents citing them:



Base: 24 North American companies that have annual revenue of more than $500 million and had done audits during the previous 12 months, out of a total survey base of 41 respondents

SOURCE: FORRESTER RESEARCH INC., CAMBRIDGE, MASS.

Sound Processes

"I think we've avoided the need for auditing because of the processes we have in place," said Ron Ellis, an IT manager at Northrop Grumman Corp. in Dallas. Those practices include using license-tracking software from Macrovision Corp. in Santa Clara, Calif., Ellis said, adding that the technology helps the company monitor compliance with licensing agreements.

A few months ago, Microsoft began a formal push to conduct fewer audits of corporate users in the U.S. Instead, it's working with users to help them better understand their license terms, said Keith Beeman, Microsoft's director of worldwide license compliance. "There are still situations where we audit customers, but ideally we're trying to avoid audit situations," he said. **48526**

IT Managers Brace to Meet Ongoing Sarbanes-Oxley Compliance Demands

Documentation, workflow apps are in demand

BY THOMAS HOFFMAN

IT managers at several large companies said last week that the software they now have should help them meet the Sarbanes-Oxley Act's internal documentation requirements on an ongoing basis. But analysts think many corporate users aren't so well prepared.

Companies that face year-end deadlines for complying with Section 404 of Sarbanes-Oxley have spent a lot of money this year on consulting services in an effort to help themselves "focus on their immediate needs and get their arms around what they need to automate later," said Cathy Hotka, principal at Cathy Hotka & Associates, a retail IT consultancy in Washington.

Section 404 requires companies to document their financial and IT controls and attest to the effectiveness of the controls on an annual basis. Hotka and other consultants said they believe that starting next year, companies will have to begin investing more heavily in technologies such as workflow, document management and identification management tools to help them automate some of their Section 404 compliance processes.

Compliance work isn't a one-year project, noted John Hagerty, an analyst at AMR Research Inc. in Boston. "It may not be Y2k every year, but it's an ongoing process that's hanging over people's heads," he said.

"The biggest challenge is to get software that facilitates Sarbanes-Oxley certification," said Ross Wescott, chief IT auditor at Portland General Electric Co., an electric utility in Portland, Ore. "If we leave it all to manual paperwork or Excel spreadsheets, the effort will soon become too cumbersome."

SARB-OX FUTURES

73%

Percentage of respondents who said they have high levels of confidence in their ability to remain compliant with Sarbanes-Oxley's Section 404 requirements

Base: A June survey of 248 senior auditors at companies with annual revenue of more than $1 billion, commissioned by ACL Services Ltd. and the Center for Continuous Auditing

SOURCE: SURVEY COMMUNICATIONS INC., BATON ROUGE, LA.

Existing Systems Capable

But Wescott added that he thinks Portland General's existing ERP system — which includes software from SSA Global Technologies Inc. and PeopleSoft Inc. — plus other tools it runs are capable of handling the company's ongoing controls documentation and testing requirements.

In some cases, though, "if you try to force-fit Sarbanes-Oxley requirements into existing technologies you have in-house, it doesn't always work," said Karl Kispert, a director at Jefferson Wells International Inc., a Brookfield, Wis.-based risk management consultancy. Kispert added that he expects most companies to increase their Sarbanes-Oxley technology budgets next year.

Some companies have been more forward-looking. For instance, Bresler & Reiner Inc. purchased Web-based software called the SOAx Toolkit from Orlando-based Axena Inc. in June 2003. Prior to buying the software, executives at the Rockville, Md.-based real estate investment trust decided that they wanted to develop a 10-year plan for Sarbanes-Oxley compliance, said Eric Clarke, Bresler & Reiner's internal audit director.

Clarke said Bresler & Reiner is using Axena's technology not only to document and test its internal controls, but also to assess the ongoing risks it faces. "We've gone through $200 million in acquisitions over the last six months, so we have to constantly assess what are significant risks under Section 404," Clarke said. **48529**

Continued from page 1

Ontario

increase for welfare recipients. The upgrade is expected to eventually cost the province a total of $7.5 million, which includes the coding work and the creation of a specialized testing system, according to a spokeswoman for the social services ministry.

Legislator Peter Kormos last week said the disclosure that the system couldn't handle the increase in payments prompted him to seek an inquiry into the Accenture contract. Not being able to increase welfare payments without modifying the system "is like buying a car without a steering wheel and General Motors is talking about it as an optional accessory," said Kormos, who leads a small opposition party in Ontario's legislative assembly.

The custom-developed system was originally slated to cost $135.5 million. The province's goal was to create a real-time, Web-enabled application that embedded some 800 rules governing eligibility for social services payments and that could help the province prevent fraud, reduce caseloads and improve service.

The new system, which is based on a mainframe running OS/390, replaced eight incompatible applications. End users access data via Internet Explorer, using Microsoft Corp.'s Active Server Pages technology. The system also includes Business Objects SA's reporting tools and is supported by a network built around equipment from Cisco Systems Inc.

Users Complaints

Development work started in 1997, and the system went live provincewide in January 2002. But critics have charged that the technology is difficult to use and requires time-consuming work-arounds.

"It's too cumbersome," said Heather MacVicar, general manager of social services for the city of Toronto. Her 2,000-member staff uses the Accenture-written software to process payments for 67,000 welfare recipients. Although MacVicar acknowledged that the new system has a more user-friendly interface than the previous one used in Toronto, she added that it's "hugely more complex."

For instance, the system's design doesn't let end users skip steps built into business processes, sometimes doubling the time required to do simple tasks, according to MacVicar. "We would like the flexibility to bypass certain things," she said, adding that trying to get Accenture to make such changes has been "an ongoing process."

According to a report issued by the Ministry of Community and Social Services itself, downtime on the system cost Ontario $1.6 million in lost worker productivity last year. But the downtime was partly caused by hardware and batch processing issues, not just by the software, the report noted.

In his July 7 letter requesting an inquiry, Kormos described the deal with Accenture as "an obviously bad contract" and charged that Ontario officials had been "thoroughly bilked by Accenture."

A spokesman for Attorney General Michael Bryant declined to comment about Kormos' request. The spokeswoman for the social services ministry also wouldn't comment about the request or the use of the new system.

In a case study posted on its Canadian Web site, Accenture said the system has helped the province save $521 million so far. A spokeswoman for the consulting firm said that it has been paid $181 million based on the system's performance. The company "would not have received a dime had it not generated savings," she said.

Regarding the concerns about the system's rigidity, the Accenture spokeswoman pointed to Ontario's desire to have a centralized set of welfare policies. She described the $1 million price tag for the application update needed to support the increase in welfare payments as a "reasonable amount" given the scope of the system. 48520

AT-A-GLANCE

Ontario's Business Transformation Project

- The new system **went live across Ontario at the start of 2002,** replacing eight older applications that were unable to share welfare case data.
- It includes **a central database, can exchange data with an interactive voice response system and lets workers use third-party sources** to verify applicant information.
- According to Ontario officials, **the system has cost $213.8 million thus far** – 58% more than the amount that was originally budgeted.

Continued from page 1

Blackout

no matter how good, there is some little detail you forgot," he said last week as the one-year anniversary of the outage approached.

The blackout, which struck last Aug. 14 and left more than 50 million people without power for days, has given many IT managers food for thought over the past year. In interviews last week, a half-dozen IT executives said they have modified their business continuity plans in the wake of the blackout, investing in projects such as reinforcing their networks and increasing the amount of testing they do.

Drew Hiltz, deputy CIO at CDC Ixis North America Inc., said the New York-based asset management company experienced a communications meltdown for two days as a result of the blackout. In June, CDC Ixis completed a blackout-driven deployment of a Sonet ring that connects multiple offices in New York and New Jersey at OC-48 port speeds.

"As a result of the blackout, the central office had significant problems," Hiltz said. "Their equipment fried." The company is using the Sonet ring not only for data links but also for voice communications, which Hiltz said has helped increase communications resiliency. In addition, the company's IT staffers have worked with Verizon Communications Inc. to reposition circuits so they can support different offices around Manhattan.

Hiltz wouldn't say how much the Sonet ring cost to install. It's more expensive than the T3 lines that CDC Ixis had before the blackout but less costly based on the amount spent per megabit of bandwidth, according to Hiltz. And officials felt they had no choice. "Resilience is something we couldn't ignore anymore," he said.

Bill Moore, telecommunications manager at the Museum of Modern Art in New York, said all of the museum's IT and building operations systems went down during the blackout. At the time, the museum was undergoing a major renovation and expansion, so IT staffers asked Verizon to install two points of presence for redundancy. They also added the museum's data and telecommunications center to its main backup generator.

Moore said that before the blackout, the museum had only battery-powered uninterruptible power supplies to temporarily keep its computers up and running.

NEW YORK CITY was left without power during last summer's blackout.

Lessons Learned

Dan Morreale, CIO at North Bronx Healthcare Network in New York, said one lesson he learned was that he needed to rethink and expand his emergency testing procedures.

The blackout's only impact on North Bronx Healthcare's IT operations was a downed server and the loss of lights in the stairwell leading to its basement data center, Morreale said. But after seeing other companies suffer millions of dollars in productivity losses, he decided he couldn't afford to simply assume that the systems would keep running if another disaster struck. As a result, North Bronx Healthcare began testing its backup generators every month instead of once a year. IT staffers also started testing the generators under a full systems load, Morreale said.

Gregg Therkalsen, vice president of business continuity solutions at EMC Corp., said the blackout has pushed many companies to expand their data center infrastructures to support data replication between two or even three IT facilities — one of which may be located on a separate power grid.

One side effect of the blackout has been a shortage of power generators, because vendors can't keep up with the demand, according to Ken Brill, executive director of The Uptime Institute Inc. in Santa Fe, N.M. Brill said a combination of the blackout and new regulations, such as the Sarbanes-Oxley Act, has created a 20-day waiting period for generators nationwide. 48528

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COMPUTERWORLD
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MARYFRAN JOHNSON

IT's New Balance

I SPENT A DAY LAST WEEK listening to a group of CIOs and IT executives trade ideas on how to solve their biggest problems with governance, regulatory compliance and outsourcing. This trio of hot topics kept the conversations cooking at an executive education program at Ohio State's Fisher School of Business.

MARYFRAN JOHNSON is editor in chief of *Computerworld*. You can contact her at maryfran_johnson@computerworld.com.

Nobody had solved all the mysteries of life by day's end, but everybody walked away with new ideas, as well as the kind of insight that only peers can provide. For these were totally frank, safely off-the-record, egos-checked-at-the-door discussions. Barely a word was spoken about specific products or technologies. Rather, most of the talk was about managing people — from IT department staffers, business users and compliance auditors, to external customers, top executives and CEOs. It was about communication and expectations, about conveying the value of IT.

Most important, it was about finding the right balance between what the business demands and what technology can deliver.

One IT leader from a car manufacturer described his tough-love approach to driving quality metrics and more professional project management into an international operation. He communicated IT progress and accomplishments by translating it into carmaker jargon that his executive colleagues could readily grasp. He underscored the need to negotiate very specific service-level agreements between IT and the business units (which led to the best quote of the day: "If your SLA is 'happiness,' you're dead.") His approach to IT governance is a highly customized one, with smaller steering committees set up based on dedicated business functions (such as marketing) rather than concentrated in one überboard of decision-makers.

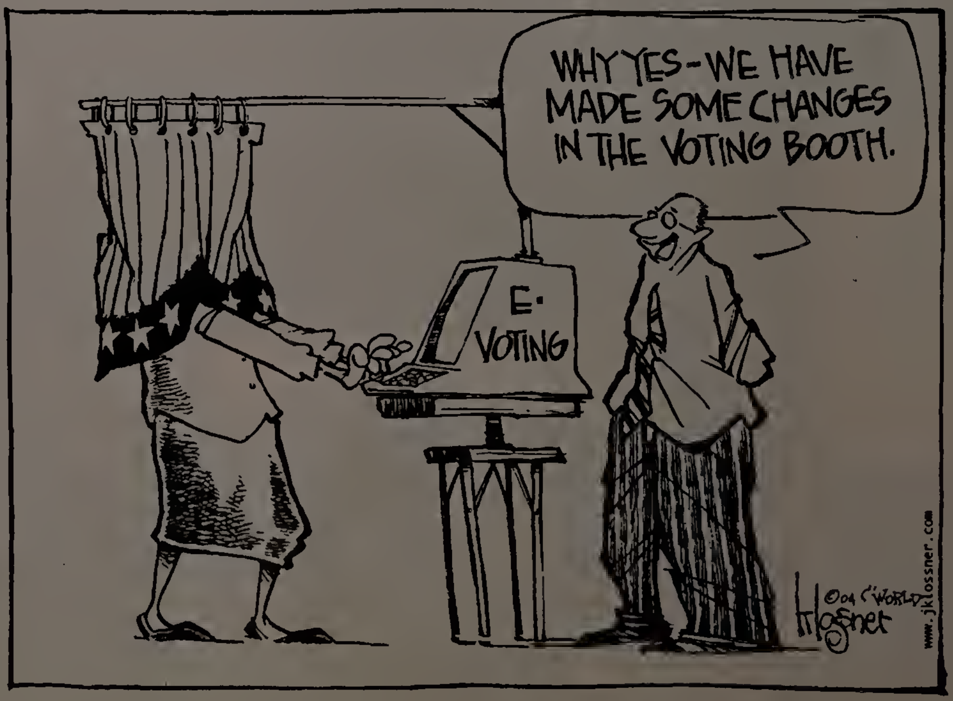
The executives also took turns acting as IT consultants in residence, diagnosing one another's management woes and prescribing new approaches. One CIO described a deteriorating relationship with other top executives at his insurance company in the wake of some rapid growth and the imposition of more disciplined IT procedures that users disliked. His IT/business alignment had clearly lost its balance.

The advice he got was classic, practical and focused on dousing the fire of dissatisfaction with IT. Start by interviewing the CEO and other company officials about what they think is wrong with IT, his peers suggested. Do a lot of listening and very little talking. Seek out the IT champions on staff to get their informal advice too. Then craft the next steps to regain that lost balance.

The assembled execs agreed that the most vital element in any IT governance or business alignment plan is the decision-making process itself — meaning who's involved and how much clout they have to get things done. It seems like such a no-brainer to ensure that this kind of high-level thinking about IT direction happens, but it's still surprisingly rare to find it done well. Or even done at all.

A few weeks ago, we ran some rather discouraging survey results in a special report about IT governance [QuickLink 48025]. The PricewaterhouseCoopers study showed that despite the fact that 76% of 335 CEOs and CIOs said they knew of IT problems that could be resolved with a formal governance framework, fewer than half of the respondents (42%) said they had plans to create anything like an executive-level steering or board-level strategy committee. So shortsighted, and such a shame.

So, how's the balance between IT and business at your company? If you haven't thought about it in a while, take a moment to do so. Then start the conversation. **48486**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DAN GILLMOR

Executive Blogging for Fun and Profit

SOMEONE I know posted an intriguing item on his weblog the other day. It began: "It's tough to compete against a social movement. Especially one in which you're a believer."

The blogger was Jonathan Schwartz, president and chief operating officer of Sun Microsystems. When it comes to the expanding blogosphere, he's a welcome addition.

Schwartz is among a small number of senior executives in corporate America to adopt the blog format for explaining his views. He's already one of the best at it, and other executives could learn something from him.

[illegible]

The average corporate Web site has much in common with the average annual report. Both are loaded with information, too much of which is hidden or disguised in an effort to minimize problems and maximize what's going right. To that end, particularly in the case of companies with problems, such sites seem designed to thwart the casual visitor who wants to look deeply into a corporation and its doings.

The least interesting feature of a corporate Web site, with few exceptions, is the typical "Letter From the Chief Executive," a content-free missive, most likely written by a committee of lawyers and marketing people, that does nothing to reveal the character either of the company or its leader. Creating an impression of openness isn't the same as actually being open. Establishing a corporate weblog can change that.

What the best blogs tend to have in common is voice: They clearly have been written by human beings with genuine ideas and a passion for what they're saying.

Schwartz isn't the first high-ranking executive to have started a blog. That honor may belong to Groove Net-

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works' Ray Ozzie, whose intermittent blog — he sometimes goes for months without posting anything — nonetheless has been enlightening at times.

He says the blog gives him "a communications channel under my control," where he can say what he wants (within limits, such as keeping trade secrets secret), and he has the ability to post quickly and without limits on length.

"I feel as though there's a conversation — many conversations — going on out there," Ozzie says. "It lets me feel like I'm part of that conversation, and when I get calls and e-mails, there's confirmation that I'm part of the conversation."

My favorite senior-executive blog comes from Internet billionaire Mark Cuban, owner of the NBA's Dallas Mavericks. His "Blog Maverick" attracted instant attention when he launched it in March, and no wonder: He took on sportswriters and offered pungent commentary on sports and investing. It's great stuff.

Corporate lawyers are undoubtedly having miniseizures over their outspoken executives' public statements. But sensible rules for corporate bloggers can prevent public relations or legal problems.

IT needs to understand how blogs work, especially the third-party software most bloggers now use. Security matters. You really don't want a hacker to put words in your CEO's mouth, for example.

I don't think corporate blogging is a fad. The blog brings a human voice to the enterprise. It's not just good marketing. It's good business. **48406**

PIMM FOX

Microsoft Entering a New Phase

GOOGLE'S initial public offering ought to quicken the pulse of even the most hardened investors. With shares expected to trade at $108 to $135, Google could raise enough money to value the company at a whopping $36 billion.

Google won't see that much cash, but if investors snap up the shares — and they are expected to do so — the company will net about $3 billion. Of course, the early venture-capital investors will receive a tidy sum as well.

PIMM FOX is a London-based journalist. Contact him at **pimmfox@pacbell.net.**

But there's something contrary in all this.

Microsoft recently announced that it would return a boatload of cash to shareholders, increase its annual dividend and buy back some shares. The move indicates that Microsoft doesn't have a better use for the money, including following a strategy of growing through acquisitions. Yes, after the buyout, Microsoft will still have $20 billion in reserve to play around with, but technology companies are supposed to be investing in the future. What does it tell us when chip maker Intel begins debating what to do with a cash hoard? Intel could give some of the money back to investors and/or buy back some of its shares.

These possibilities make me wonder what technology companies are all about.

I've always thought that investors poured money into technology companies because innovation, research and expansion into new markets take capital. Technology investors placed their bets on growth and capital appreciation.

But that seems to be changing.

Stalwart technology leaders are returning money to their investors because their shares are languishing and because they can't convince their shareholders that the future will be better than today.

Google appears to be an exceptional case right now. The premier search engine company doesn't seem to be having any problems raising cash.

Meanwhile, Microsoft has said it intends to sell *Slate*, its online magazine. It has failed to match Google in the search engine business, and it has taken hits from Apple's iPod in the world of music downloads.

The truth is, Microsoft makes money the old-fashioned way: with recurring cash streams that businesses are forced to cough up because just about everyone uses the company's operating system, which comes bundled with most PCs. In other words, it isn't innovation that drives Microsoft's future; it's an ability to make good, old-fashioned, hardball business decisions.

Indeed, you could say that Microsoft is merely reacting to changes in accounting procedures, since it has cut back on granting employees stock options that would cost the company lots of money. Because Microsoft's share price hasn't budged much over the past 12 months, those employees who do own shares (Bill Gates being the biggest shareholder) will reap a tremendous reward when the company pays a special dividend, increases the annual payout and buys back shares.

But that leaves technology investors wondering where they ought to place their bets in the future.

There's nothing wrong with handing excess cash back to investors. But it makes me think that Microsoft's days as a leader are coming to an end.
48416

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READERS' LETTERS

Don't Concede the Desktop to Microsoft

IT'S TRUE that converting a company to open-source applications is difficult; the cost of reinstallation and retraining is hard to justify ["Open-Source Apps Losing Desktop Battle With Microsoft," QuickLink 47772]. Therefore, we can't expect quick adoption of open-source desktops in the corporate world. But Mark Hall neglected to mention two places where open-source applications will gain traction. The first is new companies. Start-ups don't have existing infrastructure to worry about, and they are typically very price-sensitive, so the zero cost of open-source software will appeal to them. Once a few start-ups grow up into large companies, there will be a base of experienced advocates for open-source desktop applications.

The second is the nonprofit world. Nonprofits typically have an abundance of volunteer labor (including people available to install new applications) but a shortage of cash to buy software. Purchased Microsoft software isn't open-source software's competition for nonprofits' business; they generally don't have the cash to buy the stuff. The competition is *pirated* Microsoft software. Recent Microsoft antipirating efforts will actually accelerate open-source adoption for this group.

Mark J. Dulcey
Dorchester, Mass.,
mark@buttery.org

OPEN-SOURCE is nowhere to be found on the desktop currently, it's true, but that is only part of the total picture. Companies made the switch to Microsoft applications for the same reason that every company bought IBM products in an earlier time: You can't be blamed for buying products from the big supplier. Companies and organizations that *do* use products from alternative sources may have secret advantages like not being plagued by worms and viruses aimed at the "big" product, but if the alternative product has a bug, it's easier to blame the IT manager. Since the managers aren't rewarded for reducing overall risks, they reduce their private risks. And still too many in upper management take pride in not knowing anything useful about IT, so for them the decision is easy.

Frank Clarijs
Project manager,
Mechelen, Belgium,
frank.clarijs@tiscali.be

I GUESS you don't pay attention to events overseas. The Munich municipal government is converting to open-source desktop applications, and the French government is evaluating a complete conversion of all government desktop applications to save money. China is aggressively pushing open-source desktop applications.

The real issue with desktop apps is not so much total cost of ownership as it is frustration with the upgrade treadmill that Microsoft forces users to follow.

Also, as users and IT departments lose trust in Microsoft over its continual security failures, they are beginning to seriously think about abandoning the monoculture of Microsoft applications.

Eddie Jones
Application developer,
Montgomery, Ala.

A VAX Alternative

FOR those seeking a VAX alternative other than Charon-VAX, I strongly recommend giving the open-source SIMH VAX emulator a try ["VAX Users See the Writing on the Wall," QuickLink 47934]. The SIMH VAX emulator can be compiled and run on both Windows and Linux with ease. Benefits include a free emulator that can be run on a Linux PC, with full functionality.

Andrew Robert
Systems architect, Massachusetts Financial Services,
Boston, arobert@mfs.com

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TECHNOLOGY

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EMERGING TECHNOLOGIES

Ultrawideband: A Better Bluetooth

UWB offers huge bandwidth over short distances without wires, but regulatory hurdles and a fierce standards battle could slow its introduction. **Page 22**

QUICKSTUDY

Form Factor

Form factor refers to the overall dimensions and component layout of a device — in other words, its physical size and packaging. The term covers technical specs and/or general-purpose descriptors for hardware components. **Page 24**

SECURITY MANAGER'S JOURNAL

Singing the TLS Protocol Blues

Roger Foix runs into one stumbling block after another when he tries to secure e-mail at a client's company using the Transport Layer Security protocol. **Page 26**

Covering THE Waterfront

Information technology is playing a bigger role in protecting the nation's ports, but many projects have yet to fully roll out. **BY LINDA ROSENCRANCE**

SHIPPING PORTS are gateways to international and domestic trade in the U.S., but they are also tempting targets for terrorists. U.S. ports and waterways handle more than 2 billion tons of domestic and import/export cargo annually, a volume that's expected to triple by 2020, according to the American Association of Port Authorities in Alexandria, Va.

Before the Sept. 11 terrorist attacks, officials at U.S. ports focused on moving cargo from one place to another as cost-effectively as possible. Now those officials are just as concerned with protecting ports and meeting federal and international mandates for increased security. As a result, information technology is playing a bigger role in keeping ports safe.

In June, Homeland Security Secretary Tom Ridge said that most seaports would comply with the July 1 deadline for security under the International Ship and Port Facility Security Code and the Maritime Transportation Security Act (MTSA), which requires ports and vessels to control access, monitor activity and screen personnel, baggage, cargo and vehicles.

Yet while all U.S. ports are trying to improve security, for most it's still a work in progress, and the role IT plays varies widely. Here's how six ports are using IT to address security.

■ CORPUS CHRISTI

The Port of Corpus Christi in Texas is implementing a security plan to protect 27 miles of waterfront property. As part of the first phase, it's installing 36 surveillance cameras, including thermal cameras, infrared cameras and

MICHAEL BARTALOS

Hot Technologies for Port Security

ELECTRONIC SEALS: These radio frequency devices can be used to seal containers and assist in verification of the integrity of the contents. The e-seal transmits shipment data as it passes a reader and indicates whether the container has been tampered with.

ACCESS CONTROL SYSTEMS: These technologies identify and authenticate individuals or vehicles in order to grant them access to a restricted area or to allow a person to drive a particular vehicle or perform a restricted function such as loading goods into a container. The systems include picture badges, biometrics, RFID tags and smart cards.

ASSET TRACKING: Technologies such as GPS, RFID and bar codes are used to identify assets loaded into a container and to track the container. The U.S. Customs Service may use this technology to inspect the integrity of a container in real time at the port of entry, alert security or immobilize a vehicle.

color cameras; intrusion-detection and motion-detection technology; plus fencing, sensors and an access control system.

These systems will be linked by a fiber-based network, and the information they collect will be sent to a security command center, says Gustavo Espinosa, the port's manager of information systems. Omaha-based Adesta LLC has been awarded a $2.9 million contract — part of $13.2 million in federal grants made to the port — to provide and integrate the systems, he says.

That project includes the purchase of alert-notification software from VistaScape Security Systems Corp. The Atlanta-based vendor's Security Data Management System automates threat detection through real-time analysis of video generated by surveillance cameras. SDMS analyzes images to detect security violations and alerts security personnel of abnormal movements or objects. The software, built on Microsoft Corp.'s .Net architecture and open standards, also provides data and security sensor integration.

Using VistaScape's software and hardware, the port will integrate all the video cameras, Espinosa says. "We can display one view or a hundred views. We have two consoles, and each one could select any camera view it wants to see," he says.

Espinosa tapped Tideland Maritime Systems, a Houston-based division of marine navigation aids supplier Tideland Signal Corp., for its Vessel Traffic Information System. The VTIS consists of camera surveillance, two radar tracking systems, an automated identification system and a ship-to-shore microwave communications link.

The port will use the Vessel Traffic Management and Information Systems 5060 from Norcontrol IT AS in Horten, Norway, to collect, integrate, assess and display data from a variety of sensors to provide a comprehensive view of vessel traffic.

"For the VTIS, we are going to use a combination of T1, wireless and fiber to transmit the radars and video imaging to the security center," Espinosa says. "We are also planning to install checkpoints throughout the Corpus Christi ship channel to receive the signal from vessels and transmit it to the security center and harbor master's office."

But the VTIS and security system are independent of each other, so the port is trying to find a way to integrate the two, he says.

▪ NORTH CAROLINA

The North Carolina State Ports Authority, which manages the seaports in Wilmington and Morehead City, is moving forward on major security upgrades, says Doug Campen, security director for the port authority. Campen is planning to deploy IP-based video surveillance cameras and motion-detection technologies, as well as an ID card system that will be compatible with the Transportation Worker Identification Credential (TWIC) system. That Transportation Security Administration (TSA) pilot program aims to create a uniform identification credential for all transportation workers who require unescorted access to federally regulated transportation facilities.

The port authority also hired an engineering firm to design an integrated security system, Campen says. "Now, we don't have any ID systems or any surveillance systems or RFID tags. And that's good, because we can start fresh," Campen says. "A lot of seaports I've talked to are trying to integrate the old with the new, and they're having problems."

▪ NEW YORK

Bethann Rooney, manager of port security for the Port Authority of New York and New Jersey, says her agency is focused on the physical security of the port.

As part of a federally funded pilot program called Operation Safe Commerce, Rooney says, the port authority is working with private industry to identify supply chain vulnerabilities and develop improved methods and technologies to ensure the security of cargo entering and leaving the U.S.

Under the program, the agency is testing various technologies, including electronic seals that secure container doors and detect and report tampering, as well as RFID tags that can determine whether a container has been tampered with, Rooney says.

▪ SEATTLE

The Port of Seattle, which is also participating in Operation Safe Commerce, has instituted an access control system at its headquarters using ID badging technology from Goddard Technology Corp. in Greenville, S.C., an access control system from Johnson Controls Inc. in Milwaukee and smart card printers from Fargo Electronics Inc. in Minneapolis.

Employees' fingerprint images are recorded and encoded on smart card identity badges, and readers at secured entrances compare the encoded fingerprint image on an employee's smart card to the fingerprint placed on the reader.

As a landlord port, the Port of Seattle leases out terminals to private companies that operate them, says Jim Sherill, director of seaport security at the agency. The Coast Guard, which is responsible for ensuring that ports comply with the MTSA, requires terminals to have access control systems and surveillance monitoring systems, and progress is being made in that area, he says.

The seaport, which to date has received $10 million in grants from the TSA, also uses browser-based software from Seattle-based Vigilos Inc. to record and manage surveillance camera data. The integrated system can automatically notify the port and allow officials to view video via the Internet.

▪ OAKLAND

The Port of Oakland in California has installed an automated pedestrian access control system that includes turnstile gates and an ID card reader system that checks the identity of people entering the port, says Ray Boyle, general manager of maritime operations and designated port security officer. The system is designed to comply with the TSA's specifications for access control and the implementation of TWIC smart cards, he says.

▪ SAN DIEGO

The Port of San Diego is in the process of completing its Operations Center. A central command and control center, the operations center will merge data from local and federal monitoring and surveillance systems and be monitored around the clock. All stakeholders located within the port will have real-time access to the information, according to San Diego Harbor Police Capt. Jessica Cummins, who is responsible for homeland security at the port.

Uncommon Standards

Because security varies widely among ports and there is no federal mandate detailing the type of security systems ports should implement, members of the National Safe Waterways and Seaports Alliance in Alcoa, Tenn., are concerned that many ports don't really know what they need to do, or how to do it. They also worry that ports don't test the systems they do install thoroughly enough.

The group believes that more federal oversight is needed. "The government is going to have to set higher goals and objectives, but the ports themselves and port associations can get together and refine the system a lot better to meet not only their security needs, but their operational needs," says the organization's chief operating officer, John Widdenburg.

Jay Grant, director of the Washington-based Port Security Council of America, says his group's main focus is funding, but members are also concerned about technology issues.

"We're working to make sure that we move forward in that direction," he says. "With the MTSA going into effect, we certainly have increased the manpower and the fences and the cameras, but technology is a process that's going to take some time." **48054**

MORE ONLINE

Protecting IT: Here's how port authorities protect their own IT systems from attack: **QuickLink 48199**

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9:15am to 9:45am	**Consolidation Strategies for a New Media World** Andrè Mendes, Chief Technology Integration Officer, PBS
9:45am to 10:15am	Refreshment and Networking Break
10:15am to 10:45am	**Perspectives from Oppenheimer Funds** Tim Gerlach, Manager, Telecommunications, Oppenheimer Funds
10:45am to 11:15am	**Customer Challenges and Solutions: Real-Life Scenarios Connecting Data Centers Over Distance** Steve Adolph, CTO, Enterprise Solutions Group, CIENA
11:15am to noon	**Panel: Overcoming Management Barriers — Making the Case for Consolidation** Panel Moderator: Julia King, National Correspondent, Computerworld Panelists: Paul Bergamo, Chief Technology Officer, Liberty Mutual; Stephen Morin, Chief Information Officer, TAC Worldwide Companies; Fred Pond, Director of Information Services, The Schnitzer Group of Companies
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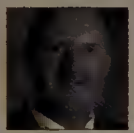

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Ultrawideband: A Better Bluetooth

Outlook: The wireless personal-area network technology is more than 100 times faster than Bluetooth, but business applications are still a long way off. **By Matt Hamblen**

EMERGING TECHNOLOGIES

ULTRAWIDEBAND wireless technology has been called "Bluetooth on steroids." Like Bluetooth, its personal-area network (PAN) cousin, UWB is designed to replace cables with short-range, wireless connections, but it offers the much higher bandwidth needed to support multimedia data streams at very low power levels. And because UWB can communicate both relative distance and position, it can be used for tracking equipment, containers or other objects.

In a recent technology demonstration, Freescale Semiconductor Inc. in Tempe, Ariz., showed a UWB device that transmitted at a data rate of 110Mbit/sec. at a range of up to 10 meters. That bandwidth — 100 times faster than Bluetooth and twice the capacity of the fastest Wi-Fi networks — is enough to pump three concurrent video streams over a single UWB connection. Vendors are promising UWB products that support speeds up to 1Gbit/sec.

Waiting for UWB

While the prospect of 100Mbit/sec. data transfers is exciting, UWB is probably three or more years away from widespread adoption, especially for business use, according to chip makers and analysts. Government regulators outside the U.S. haven't approved the use of UWB, and standards bodies are arguing over the final specification.

Craig Mathias, an analyst at Farpoint Group in Ashland, Mass., predicts that the first products with UWB chips, designed for home theater applications, will debut next year. Mass adoption of the technology won't come until 2007, he says.

Business applications, when they come, will center on UWB as a replacement for the Universal Serial Bus standard, says Ken Dulaney, an analyst at Gartner Inc. in Stamford, Conn. UWB could be used to easily connect several laptops to a single projector to handle video or slide presentations, or it could be used to back up large files quickly, he says. Eventually, workers could carry a portable storage device equipped with a system image and UWB connectivity. Users would be able to sit down at any workstation, connect via UWB and start working.

"It's very, very significant technology, and UWB is a guaranteed win," adds Mathias, noting that 50 companies are making UWB chips, including heavyweights like Intel Corp. But vendors have yet to agree on a standard. Intel is backing one camp, while another industry giant, Motorola Inc. (through its Freescale subsidiary), is backing the other.

UWB Standards Face Off

Multiband OFDM

The Multiband OFDM Alliance's specification gets its name from the fact that it divides UWB's 7,500-MHz-wide frequency range between 3.1 GHz and 10.6 GHz into smaller, 528-MHz segments. A mandatory mode supported by all MBOA devices uses three bands below 5 GHz.

Orthogonal Frequency Division Multiplexing transmits data in 312.5 nanosecond time slots, alternating among three frequency bands. Spreading information across multiple bands allows the technology to be very efficient, offering high bandwidth at low power levels, according to Srinivasa Somayazulu, a senior staff researcher at Intel.

DS-UWB

The UWB Forum's DS-UWB technology transmits data at a rate exceeding 1 billion pulses per second and spreads the transmissions across the widest possible frequency band. Forum members are also promoting acceptance of what's called the Common Signal Mode, which works as a kind of traffic cop among the different UWB standards, says Freescale's Martin Rotheart.

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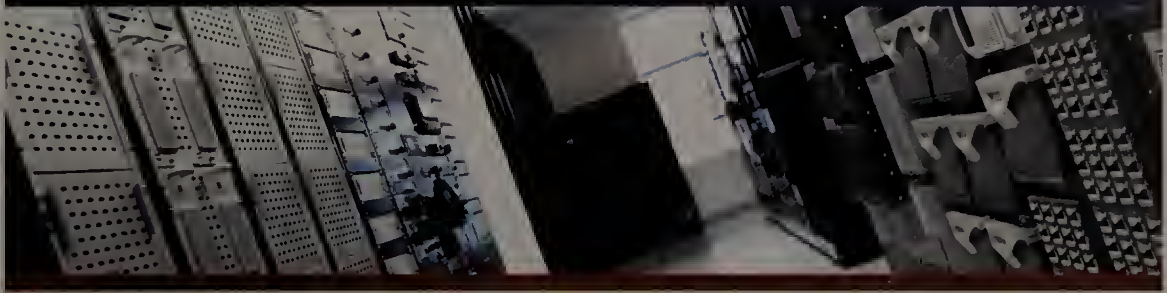

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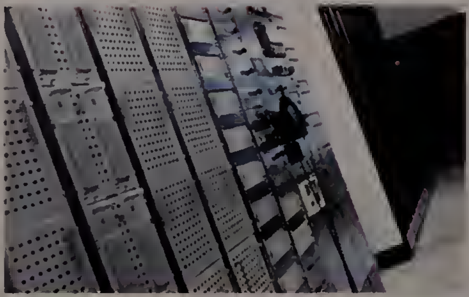

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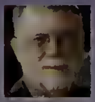

John Seely Brown
Former Director, Xerox Palo Alto Research Center (PARC), and former Chief Scientist, Xerox

Conference At-a-Glance *(subject to change)*

For details, updates, and to register visit **www.snwusa.com/cw**

MONDAY, OCTOBER 25

9:00am to 9:30am	Breakfast		
9:30am to 10:25am	**INDUSTRY PRIMER TRACK** **Addressing High Density Cooling of Storage Networking Equipment at the Facility Level** Donald Beaty, Founder & President, DLB Associates	**INDUSTRY PRIMER TRACK** **Storage Basics and Trends** Dennis Martin, Senior Analyst, and Greg Schulz, Senior Analyst, Evaluator Group	**CAREER DEVELOPMENT TRACK** **Power Statements, Questions and Answers Techniques** Howard Goldstein, Founder, Howard Goldstein Associates, Inc.
10:35am to 11:30am	**Role of Server Blades and Virtualization in Next Generation Data Center** Arun Taneja, Founder and Consulting Analyst, Taneja Group	**Why Tape Continues to Make the Grade** Richard Harada, President, Tape Technology Council	
11:30am to 1:00pm	Luncheon		
Afternoon	**SNIA Tutorial Sessions** 1:00pm to 6:40pm · **Data Lifecycle** · **Virtualization & Securing Your Storage** · **Focus on Networking Your Storage** · **Focus on Storage** · **SAN Management** · **Voice of the User** SNIA	**IDC Briefing Session** 1:00pm to 5:00pm IDC In this fast-paced session, IDC's top storage analysts will examine companies' growing interest in deploying tiered storage solutions and assess its impact on storage components, systems, networks, management and services.	**IT End-User Golf Outing** noon to approximately 6:[illegible] SPONSORED BY **Quantum** The pre-conference golf outing at the Ritz-Carlton Golf Club located adjacent to the JW Marriott Grande Lakes Resort is complimentary (a $125 value) for registered IT end-users. (Other participants, including sponsors and vendor representatives, may play on an "as available" basis and are responsible for all applicable golf outing expenses.) **To secure your spot, contact Michael Meleedy at 1-508-820-8529.**
7:00pm to 9:00pm	Welcome Reception		

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TUESDAY, OCTOBER 26 *General Sessions Begin*

7:15am to 8:15am Breakfast

8:30am to 9:15am **Don Tapscott, Renowned Bestselling Author of *The Naked Corporation*, *Growing Up Digital* and *Paradigm Shift***

9:15am to 9:45am **The Future of Knowledge Management**
John Halamka, MD, CIO, CareGroup Health System and Harvard Medical School

9:45am to 10:15am **Kevin Rollins, President & COO, Dell**

10:30am to 11:00am **Keith Glennan, VP & CIO, Northrop Grumman IT**

11:00am to 11:30am **Shinjiro Iwata, CEO, Hitachi Data Systems**

11:30am to noon **Industry Presidents' Roundtable and Market Outlook**

12:15pm to 1:30pm **CONCURRENT LUNCHEON SESSIONS**

General Networking Luncheon
On the JW Lawn

Concurrent Luncheon Session

Steve Duplessie, Founder & Senior Analyst, Enterprise Storage Group

Concurrent Luncheon Session
Richard Sneider, InterUnity Group

1:30pm to 2:00pm **David Cohen, VP, Technology Architecture Group, Merrill Lynch**

2:00pm to 2:30pm **Greg Reyes, Chairman & CEO, Brocade Communications Systems**

2:30pm to 3:00pm **Rod Mueller, Manager of Technology and Infrastructure, International Paper**

3:00pm to 3:45pm **CTO Insights Panel**
Moderator: Jon William Toigo, Founder, Toigo Partners International

4:00pm to 5:30pm **CONCURRENT SESSIONS**

5:30pm to 8:30pm Expo with Dinner / Interoperability & Solutions Demo Open

Interoperability & Solutions DEMO 5:30pm to 8:30pm

WEDNESDAY, OCTOBER 27

7:15am to 8:15am Breakfast
8:15am to 8:30am **Opening Remarks**

8:30am to 9:15am **Nick Carr, former Executive Editor of the Harvard Business Review and author of *Does IT Matter?***

9:15am to 9:45am **End User Case Study**
9:45am to 10:15am **Industry Leader Presentation**

10:30am to 11:00am **Michael Prince, CIO, Burlington Coat Factory**

11:00am to 11:30am **Peter van Oppen, Chairman & CEO, ADIC**

11:30am to 12:15pm **Panel: End Users Speak Out**
12:15pm to 1:45pm Expo & Luncheon
1:45pm to 2:15pm **End User Case Study**
2:15pm to 2:45pm **Industry Leader Presentation**

2:45pm to 3:30pm **Analyst Roundtable Panel**
Moderator: Jon William Toigo, Founder, Toigo Partners International

3:45pm to 5:15pm **CONCURRENT SESSIONS**

5:15pm to 7:15pm Expo and Reception
7:30pm to 9:00pm Gala Evening, Dinner and Entertainment

INTEROPERABILITY & SOLUTIONS DEMO OPEN
12:15pm to 7:15pm

Interoperability & Solutions DEMO

See SNW's Interoperability & Solutions Demo

- 40-plus SNIA member companies collaborating on integrated solutions
- the opportunity to meet leading experts and engineers

THURSDAY, OCTOBER 28

7:30am to 8:30am Breakfast
8:30am to Noon **CONCURRENT TECHNICAL & BUSINESS TUTORIALS**
Noon Conference Concludes

> "SNW, more than other conferences, brings together all the right vendors and all the right users - users who can properly leverage available technology and influence vendors in developing the next generation of storage products."

André Mendes
Chief Technology Integration Officer
Public Broadcasting Service

> "... SNW is a great venue for peer discussion ... an opportunity to provide feedback to vendors on what users need from them ... I sat down with my key vendors and shared information ..."

John Greer
Director, IT Infrastructure
Pacific Gas & Electric

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Please check ONE of the following:	Earlybird Registration (through September 14, 2004)	Full/Onsite Registration (after September 14, 2004)
☐ **I am an IT End-User*** (Complete Attendee Profile below)	☐ **$895** General Conference Package (October 26 & 27) (includes General Conference Sessions, Expo, Meals & Receptions) ☐ **$1,290** Total 4-Day Package (October 25, 26, 27, 28) (includes General Conference, plus Technical and Business Tracks, SNIA-produced Tutorials, SNIA-Certification "Test-Ready" Courses)	☐ **$1,295** General Conference Package (includes General Conference Sessions, Expo, Meals & Receptions) ☐ **$1,690** Total 4-Day Package (October 25, 26, 27, 28) (includes General Conference, plus Technical and Business Tracks, SNIA-produced Tutorials, SNIA-Certification "Test-Ready" Courses)

* IT End-Users are defined as those who are attending Storage Networking World with an intent (and an IT spending budget) to potentially buy/lease hardware/software/services, etc. from our conference sponsors and are not themselves an IT vendor. As such, account representatives, business development personnel, analysts, consultants and anyone else attending who does not have IT purchasing influence within their organization are excluded from the "IT End-User" designation. Interpretation and enforcement of this policy are at the sole discretion of Computerworld.

☐ **I am a Channel Partner/ Integrator/Consultant** (Complete Attendee Profile below)	☐ **$3,000** Total 4-Day Package (October 25, 26, 27, 28) (includes General Conference; Technical and Business Tracks, SNIA-produced Tutorials, SNIA Certification "Test-Ready" Courses)	☐ **$3,000** Total 4-Day Package (October 25, 26, 27, 28) (includes General Conference; Technical and Business Tracks, SNIA-produced Tutorials, SNIA Certification "Test-Ready" Courses)

By participating in SNW's Channel Partner/Integrator registration package, registrants may enjoy the following benefits: One company representative may receive a full conference pass to SNW Fall 2004; additional company representatives pay $695 each for full conference passes; company may invite up to five IT User customers to attend SNW Fall (IT Users must be strictly compliant with IT User definition on the supplied registration form); companies registering for this package interested in joining the SNIA are eligible to receive a $2,000 discount, provided that membership is applied for prior to January 1, 2005.

Attendee Profile: This section MUST be completed by IT End-Users and Channel Partners/Integrators/Consultants only (optional for all other registrations) in order to process your application.

Your Business/Industry
- ☐ Transportation/Utilities
- ☐ Mining/Oil/Gas
- ☐ Non-Profit/Trade Association
- ☐ Media/Publishing
- ☐ Banking
- ☐ Finance
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- ☐ Insurance
- ☐ Real Estate
- ☐ Telecommunications
- ☐ Wholesale/Retail (non-computer)
- ☐ Computer Service Provider
- ☐ Advertising/Marketing/Public Relations
- ☐ Entertainment
- ☐ Education
- ☐ Food Industry
- ☐ Government/Military
- ☐ Healthcare/Medical Services
- ☐ Travel/Hospitality/Recreation
- ☐ Manufacturing (non-IT)
- ☐ VAR/VAO/ASP/System Integrator (Channel/Integrator/Consultants Only)
- ☐ Industry Consultant/Storage Solution Integrator (Channel/Integrator/Consultants Only)
- ☐ Manufacturing (IT) (Channel/Integrator/Consultants Only)
- ☐ Computer Retailer/Dealer/Wholesaler (Channel/Integrator/Consultants Only)
- ☐ Software Development (Storage) (Channel/Integrator/Consultants Only)
- ☐ Other Computer Related (Storage) (Channel/Integrator/Consultants Only)
- ☐ Other

Your Job Title/Function
- ☐ CEO/COO/Chairman/President
- ☐ CIO/CTO
- ☐ VP/GM/Director
- ☐ IS/IT Director/Manager
- ☐ Other IS/IT Department Manager/Supervisor
- ☐ Other Corporate/Business Manager
- ☐ CEO/COO/Chairman/President (Channel/Integrator/Consultants Only)
- ☐ CFO/Controller/Treasurer (Channel/Integrator/Consultants Only)
- ☐ VP/GM/Director (Channel/Integrator/Consultants Only)
- ☐ Sales/Marketing/Product Staff (Channel/Integrator/Consultants Only)
- ☐ CIO/CTO/Other IS/IT Manager (Channel/Integrator/Consultants Only)
- ☐ Engineering Staff (Channel/Integrator/Consultants Only)

The one item that best describes your involvement in the IT purchase process
- ☐ Authorize the purchase
- ☐ Approve the budget
- ☐ Initiate the purchase
- ☐ Evaluate/recommend products, brands, vendors
- ☐ Identify/establish the need to purchase
- ☐ All of the above

Number of employees in your entire organization (ALL locations)
- ☐ Over 10,000
- ☐ 5,000 - 9,999
- ☐ 1,000 - 4,999
- ☐ 500 - 999
- ☐ Less than 500

What is the estimated annual revenue of your entire organization?
- ☐ Over $10 Billion
- ☐ $1 Billion - $9.9 Billion
- ☐ $500 Million - $999 Million
- ☐ $100 Million - $499 Million
- ☐ Less than $100 Million

Your organization's annual IT/IS budget for all IT/IS products, or if you are a Channel/Integrator Partner or Consultant, what is the annual dollar value of IT products/services you sell/resell/recommend/influence for purchase by your customers/clients.
- ☐ Over $1 Billion
- ☐ $500 Million - $999 Million
- ☐ $100 Million - $499 Million
- ☐ $10 Million - $99 Million
- ☐ $1 Million - $9.9 Million
- ☐ Less than $1 Million

Annual company IT budget (storage products and services)
- ☐ Over $1 Billion
- ☐ $500 Million - $999 Million
- ☐ $100 Million - $499 Million
- ☐ $10 Million - $99 Million
- ☐ $1 Million - $9.9 Million
- ☐ Less than $1 Million

Would you like to receive information about playing in the golf outing on Monday, October 25th?
- ☐ Yes
- ☐ No

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As a sponsor, you may be eligible to attend using a registration provided with your sponsorship. (If those registrations have already been assigned/used, then you may register at the prevailing rates above.) See the current list of sponsors at www.snwusa.com. Questions? Call 1-800-883-9090 or email snwreg@computerworld.com.

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☐ **$5,000 Business Development Professional Package** for Sales, Marketing and Business Development Professionals (includes General Conference Sessions, Expo, Meals & Receptions)

Vendors are encouraged to participate in Storage Networking World through sponsorship. (Details are available by calling Ann Harris at 508-820-8667.) Alternatively, vendors (as well as other "non-IT end-user" professionals as defined by Computerworld), may apply for registration at the "non-sponsoring vendor" rate of $5,000. Determination of what constitutes a "non-sponsoring vendor" registration is made exclusively by Computerworld. Please call 888-239-4505 with questions.

☐ I am a Financial/Equity Analyst and/or Venture Capital Professional

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☐ I am a qualified member of the press.

I can verify my press credentials. Press should call Erin Keefe at 1-781-915-5009 to register.

Please fax this completed application to 1-508-820-8254

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Cancellation Policy (All of the following require **written notification** by October 5, 2004.)

In the event of cancellation, the registrant has three options:
1) He or she may substitute another attendee for this conference.
2) He or she may transfer this registration to the Storage Networking World Spring 2005 conference.
3) The registration fee will be refunded, less a $250 service charge (if written notice is received by October 5, 2004)

Please send cancellation requests via email to: snwreg@computerworld.com

UWB faces serious regulatory hurdles as well, "so it's hard for it to move forward," Mathias says. The U.S. is the only country to approve spectrum for use by UWB radios. Regulators worry that UWB will interfere with a range of other wireless devices that operate in the same spectrum, including cell phones, says Steven Wood, a strategy planner at Intel.

Opposition by foreign chip makers and foreign governments might be lessening, however, says Gary Anderson, a delegate in the International Telecommunications Union (ITU). He says tests shown recently to regulators from the European Union demonstrated that interference is not a problem.

> **"UWB is here to stay, and within the next six months we'll see a great warming in the international community for UWB.**
>
> **GARY ANDERSON**, CEO, URAXS COMMUNICATIONS

"UWB is here to stay, and within the next six months we'll see a great warming in the international community for UWB," says Anderson, who is CEO of Boston-based Uraxs Communications Inc., a developer of UWB devices. The ITU is moving toward a UWB mandate that should be ready in less than a year, he adds.

Standards Deadlock

Unfortunately, at the Institute of Electrical and Electronics Engineers Inc., the matter of reaching a UWB standard is still "politically deadlocked," according to Wood and others.

The IEEE study group for the 802.15.3a PAN draft standard is at a stalemate as the two vendor groups push competing specifications. Intel is aligned with the 140-member Multiband OFDM Alliance (MBOA), which advocates the Orthogonal Frequency Division Multiplexing (OFDM) standard, while Freescale and the 30-member UWB Forum are pushing for Direct Sequence UWB (DS-UWB) technology. UWB won't progress until the two sides reach a compromise — something neither appears ready to do.

Martin Rofheart, director of UWB operations at Freescale, says DS-UWB has a "two-year time-to-market advantage" over MBOA approaches. Freescale has demonstrated a chip set called XtremeSpectrum, which it expects to appear in home wireless digital video applications this fall, he says. Freescale says the chip will support speeds of up to 1Gbit/sec. over 2 meters and will be available by the end of next year.

Intel's Wood says Rofheart's claim of a two-year lead time over MBOA is "ludicrous." Intel and other MBOA vendors will "make it a real contest" for DS-UWB vendors, and the MBOA has nearly five times as many vendors as the UWB Forum, he added.

Mathias says he wouldn't want to choose which approach is better or which will win out. "It's still early, but the amount of innovation by all the companies involved is indicative of the great potential UWB holds," he says.

If UWB doesn't catch on, other technologies in the fast-moving wireless arena could take the lead. For example, a nascent Wi-Fi wireless LAN standard, IEEE 802.11n, is expected to offer bandwidth of 200Mbit/sec. Some analysts say it's possible that by the time UWB products arrive, 802.11n devices may be available, providing higher throughput than first-generation UWB devices. Although the technology most likely would require more power than UWB, one research firm predicts that it will leap ahead of UWB for home use. That might slow UWB's momentum for business use as well — but don't count on it.

While some vendors are already touting 802.11n compliance, that's "a clearly misleading claim," according to Gartner's Dulaney, who categorizes the standard as "embryonic."

Ultimately, the success of UWB will also depend on its cost. That's still an unknown, although chip vendors predict that volume prices will eventually drop to about $5 — the same as was predicted for Bluetooth. Yet the promise of Bluetooth as a universal cable replacement didn't come to pass because the benefits of adding the technology weren't seen as compelling enough to justify the incremental cost for low-end peripheral devices such as keyboards, mice and even printers. With its higher bandwidth, UWB may offer a more compelling reason to adopt wireless PANs in the enterprise — and eclipse Bluetooth in the process.

"Bluetooth is a loser," Mathias says. The Bluetooth Special Interest Group claims that the industry is shipping 2 million chips per week, but "who uses it?" he asks. "With UWB, the economic potential is so great that it's hard to imagine it won't move forward." **48060**

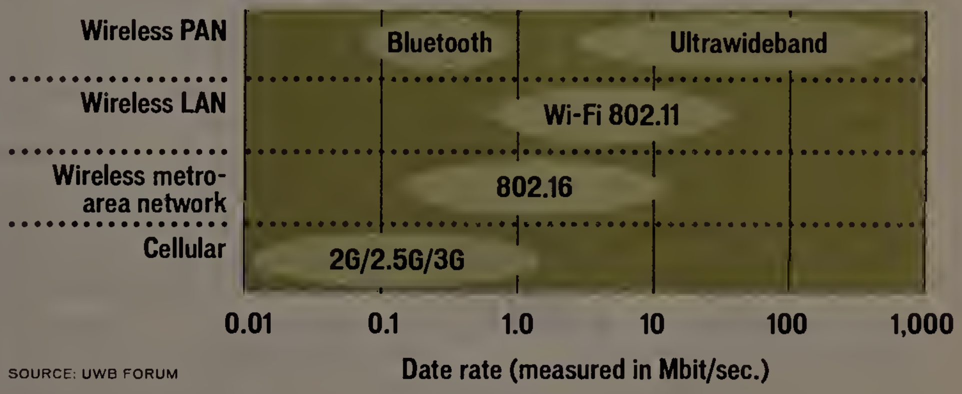
UWB RESOURCES

For more information on UWB technology, go online:
QuickLink 48062
www.computerworld.com

Ultrawideband vs. Bluetooth

	ULTRAWIDEBAND	BLUETOOTH
TYPICAL RANGE	10-30 meters	Up to 10 meters*
TECHNOLOGY	OFDM or DS-UWB*	Adaptive frequency-hopping spread spectrum
SPECTRUM	3.1-10.6 GHz	2.4 GHz
MAX DATA RATE	1Gbit/sec.	1Mbit/sec.
TYPICAL APPLICATION	Wireless synchronization and transmission of video or slide presentations between a laptop and projector	Low-bandwidth wireless interconnect for synchronizing PDA and cell phone address book data with PCs
AVAILABILITY	Not before 2007	Now
	*Competing specifications have yet to be reconciled.	*Supports up to 100 meters at higher power levels.

Where Ultrawideband Fits



SOURCE: UWB FORUM

Taking a UWB Test Drive

UWB is getting an early workplace test drive in the new Siebel Center for Computer Science at the University of Illinois at Urbana-Champaign College of Engineering. The building, which opened April 30, will have UWB sensors installed in one wing by August, following tests for interference, says professor Roy Campbell.

UWB sensors and tags from Ubisense Ltd. in Cambridge, England, will be used to identify the location of the teachers and students who wear them. Special software will pinpoint each individual's location in the wing.

The university is also working on a research project called Gaia, with funding from the National Science Foundation, to design a middleware operating system to manage resources used by workers in the wing.

Campbell says several ideas for applications of UWB have been floated. One would involve developing a way to make a document readable when a user has it in a certain location but leave it encrypted when the document is read elsewhere.

Another would tailor an office to a particular individual automatically, giving him access to certain files or applications. In that case, the Ubisense tag could trigger an automatic sequence of system authorizations, and a video camera could verify that the user wearing the tag was indeed the right person.

"In the medical area, there are all sorts of applications for UWB, including how to make sure patients aren't left in the corridor," Campbell says. But ultimately, he adds, UWB's success will depend on "how cheap you can make the technology."

– Matt Hamblen

Form Factor

DEFINITION

Form factor refers to the overall dimensions and component layout of a device — in other words, its physical size and packaging. The term covers technical specifications and/or general-purpose descriptors for different hardware components.

BY RUSSELL KAY

QUICK STUDY

WHEN we refer to the size of a computer or component, we might be talking about its capacity, speed or connectors. Or we could be talking about its dimensions — how much physical space it occupies on the desktop, inside the PC box, in a server rack or in a briefcase. We apply the term *form factor* to the latter interpretation, to describe size and packaging.

Like much computer terminology, *form factor* began as technical shorthand but later was adopted as a marketing term as well. Thus, in many cases, form factor refers to a strict, technological definition while in others it is a vague and nonstandard promotional term.

Here, we offer a quick rundown of common form factors (highlighted in italics) for various types of products.

Disk Drives

For disk storage, form factor is pretty much synonymous with the diameter of the disk platter. Nowadays, the standard form factor for optical drives is *5.25 in.* (in a 1.75-in.-thick package that used to be called *half-height* but is now the standard), and for desktop hard drives it's *3.5 in.* (but starting to move to *2.5 in.*). For notebook computers, for many years the standard form factor has been a 2.5-in. drive, but small notebooks are moving to smaller drives — *1.8 in.*, *1.0 in.* and now even *0.85 in.* Drives for notebooks are also characterized by their thickness or height, usually *17*, *12.5* or *9mm.*

Flash Memory/ Disk Drives

Memory cards used in notebook computers, digital cameras, handheld devices, music players and other portable devices are described based on their capacity, in megabytes, and their configuration: In order of decreasing physical size, these form factors include *PCMCIA* (also *PC Card* and *CardBus*); *Compact Flash Type III* and the thinner *Type II*; *Memory Stick* and *Memory Stick Pro*; *SmartMedia*; the physically identical *MMC (Multimedia Card)* and *SD (Secure Digital) Card*; the *Mini-SD*; and the newest, *XD-Picture Card.* (To keep the record straight, most of these form factors are also used for I/O or other nonmemory devices.)

None of those form factors, of course, includes the more recent wave of "keychain" flash memory cards that plug directly into a USB port. Curiously, no single name or form factor descriptor has emerged for these USB devices.

Desktop PC Enclosures

How big (and what shape?) is the box that holds your PC? Besides referring to the type of motherboard(s) a case is designed to accept, we also describe the case as a *tower* (sometimes *full tower*, with the biggest capacity for multiple disk drives), *midtower* or *minitower* (same basic shape, but shorter); *microtower* (smaller still, usually capable of handling only a single floppy drive and optical drive); the superflat *pizza box;* and finally the *all-in-one* (combining monitor, storage and electronics in a single package).

A somewhat confusing term these days is *small form factor* (sometimes abbreviated *SFF*), which usually refers to a small, near-cube-shaped box that may require proprietary components, best exemplified by Shuttle Computer Inc. computers or the Aria case from Antec Inc. Small form factor is also used to describe the smallest enclosures in a given maker's line, regardless of shape.

Server Racks

Servers, routers and many other back-office IT devices are designed to mount in steel racks that are 19 in. wide. In this case, *form factor* describes the height of a component in multiples of *U* (or 1.75 in.). Thus we might have a 1U server, a 2U patch panel or a 6U housing for server blades. The standard rack is 42U high.

Portable Computers

For notebooks, we talk about *desktop replacement* (meaning big, heavy and relatively cheap), *multimedia* (bigger, heavier, not cheap), *thin and light* (topping out at about 1 in. thick and no more than 4 to 5 lbs.), and *ultrathin* or *ultralight* (under 4 lbs., sometimes under 3). Then there's the Tablet PC, Microsoft Corp.'s spec for ink-enabled touchscreen computers that includes two form factors: the simpler *slate* (no attached keyboard, and designed to be attached to a docking station) and the heavier but more versatile *convertible*, with an integrated keyboard.

For handheld PCs (HPC being another Microsoft spec) and PDAs, no clear set of form factors has emerged, although some smart phones with PDA capability (such as PalmOne Inc.'s Treo 600) are now described as having a *small PDA form factor.*

CPUs

For microprocessors, form factor generally refers to the physical interface between the CPU and the motherboard. We speak of generic form factors or technologies, such as *FC-PGA* (flip chip pin grid array), where chips are turned upside down and attached using a matrix of solder balls instead of wires. The layout or contact mechanism might be further characterized as *PPGA* (plastic pin grid array), *TCP* (tape carrier package) or *CPGA* (ceramic pin grid array).

Another type of CPU form factor is the name of the attachment mechanism, such as *Socket 478* (the numeral refers to the number of contact points), *Slot 1* or *Slot A.*

Memory Chips

For dynamic RAM chips, the most common form factor is the 168-pin *dual inline memory module*, or *DIMM*, where RAM chips are located on both sides of a small circuit board that plugs into a designated socket on the motherboard. These are too large for many notebook computers, however, which use a smaller type of module called *SODIMM*, or *Small Outline DIMM*, with either 72 or 144 pins. 48265

Kay is a Computerworld *contributing writer in Worcester, Mass. You can contact him at russkay@charter.net.*

PC Cases

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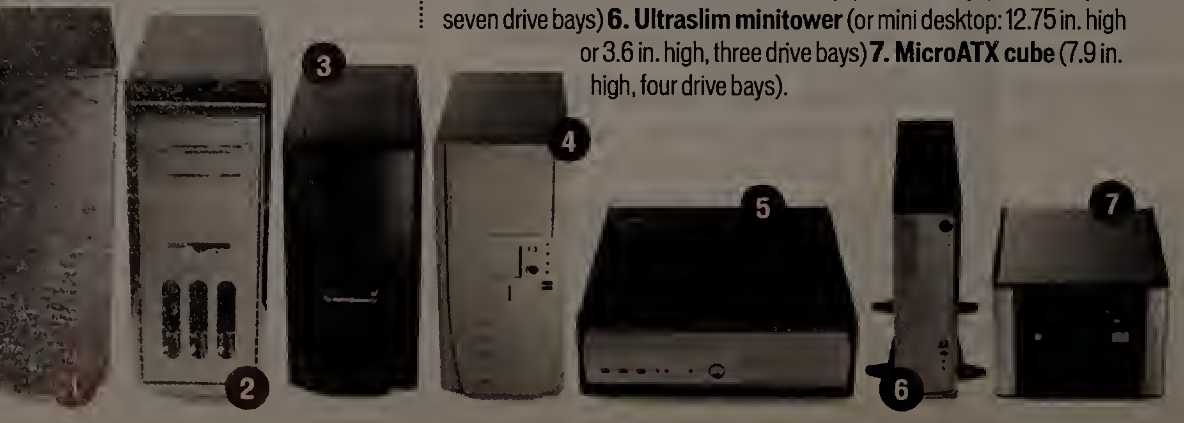

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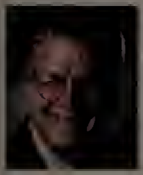

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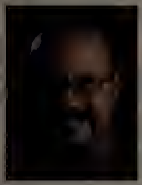

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Singing the TLS Protocol Blues

Deploying secure e-mail using transport layer security turns out to be more problematic than it looks. By Roger Foix

THIS WEEK I'm dealing with secure e-mail, and in particular the Transport Layer Security (TLS) protocol.

The financial services company for which I'm consulting is setting up secure e-mail links with several customers to protect messages containing sensitive financial data. The traditional approach to e-mail security is to use a desktop encryption product that's compliant with one of the two common standards: S/MIME or OpenPGP. These are ideal if you have a small, tech-savvy user base, but as you scale up, you start to encounter problems around usability, certificate management, per-user license costs and so on.

SECURITY MANAGER'S JOURNAL

TLS 101

My employers are taking a different approach: They're sending their e-mail using TLS, which is essentially the latest incarnation of the Secure Sockets Layer protocol.

You can use TLS to open secure channels between e-mail servers. Once two e-mail servers start talking TLS to each other, they can then pass all their normal e-mail traffic over that secure channel. *Voilà*! Every message between those two companies is automatically encrypted and decrypted without any effort on the part of the end user. And because TLS support is built into most e-mail gateway software, there's usually no extra cost to use it. You can see why my client likes it.

As with any encryption protocol, however, the devil is in the details, and the details of TLS have been bedeviling me for quite some time now. One problem is that TLS secures only the link between the two e-mail servers. It provides no protection after the message has reached the destination server, so your confidential e-mails are still unprotected on another company's server.

My client is setting up secure links to its customers, so we have the luxury of just adding caveats to our contracts to mitigate that risk. But several of our customers are questioning how they will know that their messages are still secure after reaching us. None of them has found a good answer yet, but a few have spent a lot of money on auditors and security reviews to convince themselves of our security.

Then there's the issue of digital certificates: Like any good encryption protocol, TLS uses them to prove the identity of the sender and the receiver. In our case, each e-mail server uses a digital certificate to authenticate itself to the other e-mail server. The problem is that most certificates are designed for SSL connections on Web servers, which make up the bulk of the market. Web servers tend to use only server authentication: When you connect to the server, it gives you its certificate to prove that you've come to the right Web server. Few servers bother to ask clients to prove their identity by presenting their own digital certificate, since most users have never bothered to obtain a digital certificate. So, while client authentication is an option in SSL, it's rarely used.

> [If a TLS client reconfigures its e-mail servers and the TLS link stops working, your e-mail will be sent unencrypted.]

Not so with TLS. Client authentication is an important part of e-mail security. If someone's sending you an e-mail that looks like it's from the CEO at your biggest client, you want to know that it really is coming from the CEO, not a hacker who knows how to forge e-mail addresses. When you're buying certificates for your new TLS-enabled e-mail servers, check that your certificate authority provides certificates that support client authentication. Most seem not to, at least not by default.

Tackling Enforcement

Then we hit the enforcement issue. You can set your e-mail servers to one of two modes: opportunistic TLS, where the servers try to negotiate a TLS connection with other servers but resort to unencrypted e-mail if they can't; or enforced TLS, where your e-mail servers use only TLS and refuse to talk to another company's e-mail servers if they don't support the protocol.

Opportunistic TLS is simpler to do, but if a client suddenly reconfigures its e-mail servers (as happened to us three times last week) and the TLS link stops working, then all of your confidential e-mails will be sent unencrypted over the Internet. Oh, and unless you've set up some custom reporting, you'll never know about it.

If you go for enforced TLS, on the other hand, then the same changes mean that e-mail suddenly stops flowing to and from your client.

After resolving those problems, we hit on e-mail routing issues. Routing is based on the use of mail exchange (MX) records, which specify the e-mail servers that should be used for a particular domain. When you send an e-mail to president@whitehouse.gov, your server looks up the MX record for whitehouse.gov and sends your message to the server mailhub-wh2.whitehouse.gov. TLS uses the same mechanisms, so there should be no problems.

Then we came across a client of my firm who's still using old e-mail servers that don't support TLS. Instead, the company had set up a dedicated, unlisted e-mail server for TLS connections. Another client had backup servers listed in its MX records that don't support TLS.

In those cases, you have to stop using MX lookups and start specifying which servers to use for which domain. That task is easy enough, but it takes time to manage. However, if a company changes its e-mail systems, it also changes its MX records, but you won't notice because you're not using MX lookups any more. In that case, e-mail stops.

Soon I'll be incorporating an outsourced antivirus service into the TLS architecture. I know a fellow consultant who's working on exactly that and looking quite stressed. Given what I've been through so far, I think I'd better go buy him a beer and find out what I'm letting myself in for. ◗

WHAT DO YOU THINK?

This week's journal is written by a real security manager, "Roger Foix," whose name and employer have been disguised for obvious reasons. Contact him at roger.foix@hushmail.com, or join the discussion in our forum: **QuickLink a1590**

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SECURITY LOG

TLS Resources

- For an introduction to the topic, Wikipedia's TLS page is excellent. http://en.wikipedia.org/wiki/Transport_Layer_Security
- The Internet Mail Consortium's S/MIME and OpenPGP page offers a very good overview of these encryption protocols. www.imc.org/smime-pgpmime.html
- This page, created by the IETF's Network Working Group, describes the SMTP over TLS protocol. www.ietf.org/rfc/rfc3207.txt
- The MX Lookup Utility, available for download at www.webmastertoolkit.com/mx-record-lookup.shtml, is a useful tool for working with MX records.

– Roger Foix

NetForensics Adds nFX Tool

NetForensics Inc. has released software that's designed to allow administrators to enforce security policy compliance at network endpoints. The Edison, N.J.-based company's nFX Policy Reporting tool notifies administrators when a user or machine accessing a network has outdated antivirus code or unpatched operating systems or otherwise violates security policies.

Tripwire Update Seeks Approvals

Portland, Ore.-based Tripwire Inc. has shipped change management software designed to let administrators identify unintended or unauthorized changes to server file systems and configurations, and other security compromises. New features in Tripwire for Servers 4.5 and Tripwire Manager 4.5 let users approve changes before deployment, include a method for approving changes based on the severity level of the planned change and enable integration with enterprise management software.

BRIEFS

Verbatim Rolls Out New Storage Media

Verbatim Corp. has introduced a new set of 5.25-in. Ultra Density Optical write-once and rewritable media. The storage devices are designed to provide reliable, long-term storage, according to the Charlotte, N.C.-based company. Verbatim's 30GB, dual-sided UDO media, which support UDO drives and optical jukeboxes from Hewlett-Packard Co. and Plasmon Corp., will be available this month starting at $60.

New IM, E-mail Management Tools

DYS Analytics Inc. added the ability to log and archive instant messages to its Control 4.2 collaboration management application. The Wellesley, Mass.-based company said it also added broader e-mail trending-analysis tools to its E-mail Control product. The updated applications, which are available for Microsoft Exchange and IBM Lotus collaboration products, are available now and start at $25,000.

IT Monitoring Software Debuts

Adlex Inc. announced the availability of ITvisibility. The software measures IT service levels experienced by users of applications around the clock, taking note of IT infrastructure, networks and application performance, according to the Marlboro, Mass.-based company. Pricing wasn't disclosed.

Web Tools Project Announced

The Eclipse Foundation in Anaheim, Calif., and the ObjectWeb consortium in Saint Ismier Cedex, France, announced the launch of the Eclipse Web Tools Platform Project. Bjorn Freeman-Benson, a research scientist at the University of Washington in Seattle, will lead the project.

PAUL A. STRASSMANN

Depend on Microsoft?

WE ARE ALL dependent on Microsoft. One way of demonstrating that is to imagine a devious attack in which one of the company's frequent updates was rigged to destroy Microsoft software everywhere. The information economy would collapse. Millions of workers would be instantly deprived of their capacity to function. The economic damage would far surpass the stock market valuation of Microsoft shares.

Early in July, CEO Steve Ballmer sent out a memo to each of Microsoft's 57,000 employees stating that the company will slash annual costs by $1 billion following a sharp rise in spending over the past three years. Those of us who have bought information technologies from RCA, GE, Honeywell or Amdahl are rather sensitive about such announcements. After serving as Xerox's CIO through the ups and downs of that stellar firm, I am particularly touchy about them. Are they harbingers of decline, or are they reassertions of vigor?

One way to judge a company's viability is to check out trends. From 1999, when Microsoft's price per share peaked, through 2003, when its latest financial report was published, several of Microsoft's costs grew faster than its revenue: Overhead costs grew by 15%, the cost of goods by 34% and employment by 12%. Meanwhile, growth in profits was 37% lower than revenue growth. Actually, that lag in profits is worse than it appears because 15% of the revenue was from investment income and not from sales of software. The numbers confirm that Ballmer was right to institute massive cost reductions.

There is another way to check Microsoft's performance. The Economic Value Added reflects the enormous accumulation of cash that belongs to shareholders but awaits profitable investment. From the shareholders' standpoint, the EVA is equal to profit minus payment for shareholder equity at the shareholder's valuation of the worth of investments in Microsoft. If the EVA is negative while there is ample cash, it suggests that management has stopped innovating. Well, the EVA numbers (in millions of dollars) tell that story: It was $1,225 in 1999, -$1,788 in 2000, -$2,794 in 2001, -$176 in 2002 and -$998 in 2003. Altogether, these indicators don't tell a pretty story.

As a remedy, Microsoft has just decided to unload most of its cash as a way of improving its EVA. That's a sure sign that the company is unable to find sufficiently attractive opportunities to create added value for its customers.

We shouldn't be pleased with this analysis. Microsoft has been a leader in asserting the U.S.'s global primacy in IT. Microsoft has provided the de facto standards that have made it possible for a significant share of hardware and software to become interoperable.

If Microsoft wobbles (as IBM did in the early 1980s), we will all incur heavy costs in migrating to other vendors. The cost of replacing Microsoft-embedded systems will rise as the company tries — by every legally permissible means — to reinforce the dependency on its "monoculture" (see QuickLink a4830).

What to do? I'm not ready to give up Word and Excel. I would struggle to function as an author and researcher if I did. However, the steady stream of security and program updates upsets me. I have made 53 updates for the Windows XP operating system in less than a year. To that I must add patches for Internet Explorer (five in the past 60 days) and several for Word. Every time I make any change, my Windows registry and program-integrity checks show errors that require me to rerun diagnostic routines and take elaborate security and backup precautions. I can only imagine what the systems operators at big organizations must suffer making patches to Exchange servers and other Microsoft software.

Confucius said, "Do not enter a house if you do not know how to exit." That's good advice for anyone who is tempted to install systems from which it would be costly to migrate. In the short run, continuing with an all-Microsoft environment will always be the most attractive option. Nevertheless, users should avoid using software components that are so tightly coupled that any future migration could require wrecking much of the systems architecture. Explore all options to avoid the monoculture perils.

I have been successfully using a non-Microsoft e-mail package for decades, and I have avoided much grief because intruders couldn't readily find my address book. I have just switched happily from Explorer to the perfectly functional Mozilla browser. That is just one easy way to preserve diversity while minimizing risk. When you re-examine your architecture policies, you might want to add a diversity advocate to your staff to examine what it would cost you to migrate from Microsoft in case you must do so. **48409**

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MANAGEMENT

Career Watch
How to attract and retain women in IT; where and where not to recruit top talent; and when CIOs talk, do CFOs listen? **Page 33**

Think Tank
Why call centers need to be prepared for the camera-phone generation; ups and downs in IT services spending; and how the IT economy is "stuck in first gear." **Page 32**

OPINION
Questions Trump Answers
IT is full of answer people, but Paul Glen says good answers can get you only so far. At some point, you need to start coming up with great questions. **Page 34**

Roll Your Own

DESPITE THE PROLIFERATION OF GOOD OFF-THE-SHELF SOFTWARE, SOME SHOPS STILL PREFER TO BUILD IT THEMSELVES. HERE'S WHY.

BY GARY H. ANTHES

AT A NATIONAL SALES MEETING, the president of Reliant Pharmaceuticals Inc. rose to ask if there were any questions. "Throw anything at me," he said to the salespeople assembled. Someone immediately asked, "When are we getting automated?"

"Never," the president answered. "I want you out selling our products to physicians, not playing with computers."

Everyone in the room cheered.

"They didn't want sales force automation," explains Reliant's CIO, Ron Calderone, because they didn't want to have to carry a laptop or a PDA or some other handheld data-entry device that such systems typically require.

Nevertheless, Liberty Corner, N.J.-based Reliant needed a system to keep track of the activities of its growing sales force. Although there were many commercial packages available, user resistance led the company to develop its own sales force automation, or SFA, system, one that eliminated the data entry device in favor of simple telephone input to a speech-recognition front end. "Oddly enough, they didn't view that as SFA," Calderone says.

Accommodating the special needs of users is just one reason why companies continue to develop their own applications. IT shops are bucking the trend toward off-the-shelf applications and are opting to use custom-developed systems in the following situations:

- A package falls short in one or two crucial respects and is bloated with unneeded features.
- Companies can develop their own system more cheaply, especially when they have deep subject-matter expertise.
- An application is of strategic importance, and

ISABELLE CARDINAL

the company wants to control every aspect of it.

- The vendor is too slow or is unwilling to adapt its package to changing user needs.
- The package doesn't integrate well with existing systems or with the company's IT infrastructure.
- Support and maintenance costs are too high.

Simple and Easy

It wasn't user considerations alone that drove Reliant's roll-your-own strategy, Calderone says. He estimates that a commercial SFA package would have cost the company $4 million to $6 million for hardware, software, customization, help desk, telecommunications and training. "I have eliminated a number of these costs," he says. "For example, I have no need for a help desk because the system is so easy and simple — it's really just people answering questions over the phone." He says his SFA system cost less than 15% of the amount he would have spent on a full commercial package, albeit with fewer features.

Cardinal Health Inc. in Dublin, Ohio, also developed its own SFA tools — Web-based applications written in Visual Basic. Because the company had a long history of working with these kinds of tools, it knew exactly what it wanted and saw in-house development as low-risk and low-cost. In addition, says Rich Gius, CIO in Medical Products and Services, ongoing maintenance and support costs for a commercial product would have been far greater.

Explains Gius, "Our homegrown tool integrates directly with our common data warehouse, but a tool from the outside would have required a replication of our data warehouse into their own table[s], so the integration cost, the data management and cleansing costs would have been significant."

Gius says that the build-vs.-buy decision should be made on a case-by-case basis but that more complicated applications generally should be purchased. "In the case of a warehouse management system, we would prefer to build on the collective knowledge of vendors and benefit from their software that reflects the sum of all their other customers' needs," he says. "And I'd never build an ERP or an inventory control system or an order fulfillment system. There's enough competition in the marketplace now that I'd be comfortable we could get a reasonable price."

Subjective evaluation criteria should be supplemented with more rigorous financial analyses, says Gius. Cardinal evaluates projects based on a number of metrics, including return on investment and discounted cash flow [QuickLink 46832]. "It's evolved into more of an economic value-added model to take into account the weighted cost of capital," he adds.

It All Depends

IT executives generally say it makes little sense to develop your own commodity, or utility, system, such as payroll or general ledger. But one company's utility can be another's strategic asset. Choice Homes Inc., a $750 million house-builder in Arlington, Texas, chose to develop its own suite of accounting systems — general ledger, accounts payable and accounts receivable — even though many mature commercial choices are available. It was the only way to get the extremely flexible reporting necessary to satisfy the needs of autonomous, remote construction managers, says CIO Andrew Brimberry.

Build, Buy Or . . .?

FOR SOME COMPANIES, procuring software isn't a binary buy-it-or-build-it proposition. "We are largely an open-source shop, so when we think about buying software, there's a general aversion to it," says Orbitz CTO Chris Hjelm. The online travel company uses open-source Linux on most of its 1,000 servers and the free Jini network architecture for distributed systems.

"We've built our services layer such that when you make a call to the Jini framework – to buy an airline ticket, for example – it manages that request. It goes off and finds all the back-end complex things that have to happen to build an airline ticket, and it makes that transparent," he says.

Hjelm explains his devotion to open-source this way: "A commercial product doesn't always guarantee great support – especially at 3 a.m. Ultimately, we need to know how our application works from top to bottom and not just write code on top of a closed product. Sun has made the source [code] to Jini freely available and has a strong community, which in many cases is worth more than any support you can purchase."

Humana Inc., a $12 billion health insurance company, adds its own third option to the buy and build choices. "Our motto is partner before buy; buy before build," says Brian Le Claire, vice president and CTO at the Louisville, Ky.-based company. "If there's someone else out there that has solved this problem, we see if we can partner to bring the solution to bear on the problem we have."

Partnerships can take a number of forms, from simple file sharing to combining two applications or jointly developing a new one, Le Claire says. Humana teamed with Blue Cross and Blue Shield of Florida to develop Availity, a Web portal that doctors and other health professionals use to exchange information among multiple health plans.

Le Claire says each company contributed "subject-matter expertise, implementation resources, technology solutions, capital and commitment."

– Gary H. Anthes

"I actually believe that our general ledger does give us a competitive advantage, because we can close our books at the end of the month in two days and at the end of the year in four days," Brimberry says. "So we know very quickly what money we are making and where we need to adapt."

It's even possible, he says, to look at profit and loss data in the middle of the month at various levels, all the way down to a single house under construction — something he says commercial packages can't match.

Another bit of conventional wisdom that Brimberry rejects is the notion that by buying software, IT shops can leave the unpleasant support and maintenance chores to the vendor. He says he spends more time fixing his payroll and human resources systems — the only applications he hasn't developed internally — than any others. "Their standards of development aren't as high as [ours]," he explains.

Indeed, for some companies, the ongoing system costs and maintenance issues are more important than the initial procurement costs. Chris Hjelm, chief technology officer at Chicago-based online travel company Orbitz LLC, developed a contract management system in-house for the bargain-basement price of $50,000, and he says that supporting it requires just a quarter of one person's time. Because the system is simpler than comparable commercial packages, and because it's better integrated with other Orbitz systems, it's easier to maintain, he says.

And, Hjelm says, for a fast-changing online company like Orbitz, software vendors are just too slow. "Their timelines tend to be measured in six-month to one-year increments at best, but when we do software innovation for our commercial Web site, we do it in two-week increments."

Competitive Advantage

Reinsurance Group of America Inc. in Chesterfield, Mo., developed its own "enterprise administration system" that manages customer data, contracts and policies, calculates premiums and performs other back-office functions. Azam Mirza, vice president of global software, says he would have had to buy six to eight commercial packages to do all of those things.

But an even more important consideration, Mirza says, was that by rolling its own $35 million system, Reinsurance Group was able to include international functions such as currency conversions and multiple languages. "That's a huge competitive advantage for us," he says. "Everybody in the reinsurance industry is trying to build a global administration system, but they are two to five years behind us."

Mirza rejected the option of working with a software vendor to add global functions to an existing product. "We didn't want to end up with a commercial package that others could buy that we helped build," he says. "It would have been a custom system for us, and then a package for all of our competitors."

VisionQuest National Ltd., which provides intervention services for at-risk youth and has offices in Pennsylvania and Arizona, installed an ERP package but found that its billing module couldn't handle the complex contracts that VisionQuest had with its customers. So it hired consultants to help build a billing module compatible with the rest of the ERP package, says Greg Seyk, CIO and vice president for IT.

"They tried to force-fit us into the [package], using a variety of creative approaches, and we just couldn't get it to work," Seyk says. The consultants finally wrote the billing system from scratch, and contract programmers developed a custom child-tracking system as well. Both efforts proved difficult. "We went through two sets of consultants before our third set finally finished the child-tracking system," Seyk says.

Seyk offers this advice to those who decide to develop systems using contract developers: "Qualifying consultants is a huge, huge task. You can get references and do reasonable due diligence, but when the rubber meets the road, the consultants may not have the skills to do the custom programming." **47884**

AN ONGOING DEBATE

The debate over buying off-the-shelf software or building your own is IT's version of "Tastes great!" "Less filling!" Read about both points of view:

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PRUDENT Pruning

Cutting back your systems can keep your IT environment vital and responsive.

By Alan S. Horowitz

IT SYSTEMS GROW LIKE KUDZU. It's "almost an inevitable fact of IT," says Tony Iams, an analyst at D.H. Brown Associates Inc., a technology research firm in Port Chester, N.Y. And once built or bought, systems tend to stay around by default. "Administrators are afraid of getting rid of things," says Randall Palm, director of IT at IT trade association CompTIA. "We've all learned the hard way not to unplug a server we think isn't being used."

But smart CIOs know that unchecked growth can lead to duplication and sluggish performance, while prudent pruning can keep an IT environment vital and responsive. Here are 12 telltale signs that it's pruning time:

1 Your system limits you. If old applications keep you from re-engineering your business processes to keep ahead of the competition, it's time to prune, says David Sommer, vice president of e-commerce at Oakbrook Terrace, Ill.-based CompTIA. He tells of one company whose wide variety of systems made it too inflexible to interface with its customers for business-to-business e-commerce. That convinced the IT group to start snipping.

2 The technology has seen better days. "The application may be great, but the technology is dying," says Art Data, vice president of IT at International Truck and Engine Corp. in Warrenville, Ill. Sure, everyone loves the old word processor, but if it runs only on DOS, move on.

3 Duplicate systems serve no purpose. "How many image processing systems do I have? Why is that?" asks Data. If your company has lots of autonomous business units, duplication is justifiable, but generally, duplicate systems should be deleted.

4 Applications are underused. Look for applications in your portfolio that are occupying space but not being used, says Byron Miller, an analyst at Forrester Research Inc. in Cambridge, Mass. Also, ask, "How much is it being used?" says Eric Goldfarb, CIO and executive vice president at PRG-Schultz International Inc., a recovery auditing company in Atlanta. You might find that changes in business processes have made some functions or applications obsolete.

5 Users only *think* they need it. Trust users, but verify. Goldfarb once worked at a company that generated 1,200 reports. Asked which were really needed, users vouched for virtually all of them. So Goldfarb took away access to all the reports and waited for users to complain. Mostly, they didn't, and he trimmed 1,200 reports to 100.

6 You can't upgrade. "Systems that are too complex to upgrade generally fall out of favor," says Iams. If you have some systems you can't get up to speed, pull out the shears.

7 You're forced to upgrade. Tom Pratt used to try to keep old systems running for as long as possible, but he found they would invariably fail at critical times, forcing him to upgrade even though he would have preferred to replace them. Now Pratt, an IT manager at Coastal Transportation Inc., a common carrier in Seattle, has stopped trying to keep struggling systems alive. He prunes them and buys something new.

8 The vendor doesn't support the system. "A good indication that it's time to retire a system is when the components are no longer supported by the vendors who produce them," notes John Montgomery, chief technology officer at Embarcadero Systems Corp. in Oakland, Calif., which provides software for seaports.

9 The system is unaligned. If the old system just doesn't fit with re-engineered business processes, it's time to prune, says Sommer.

10 The cost of ownership is too high. The ongoing costs of a "bargain" system can be more than they're worth. "Most companies look at what [an application] cost initially," says John Parkinson, chief technologist for the Americas region of Capgemini, a consulting and systems integration firm. "The cost of owning should be based on the cost of keeping [the system] running."

11 The system is incorrigible. Have a three-year plan, and get rid of the systems that are least cost-effective and most difficult to integrate into that plan, says CompTIA's Palm.

12 You've added a new system. Establish a strategy that requires taking away a system for each one you add, says Parkinson. "After a couple of cycles of this, you can really start attacking" the kudzu growth, he says. "It really works."

48003

Horowitz is a freelance business and technology writer in Salt Lake City. Contact him at alan@ahorowitz.com.

Pruning Tips

- **Don't eliminate a system just because it doesn't seem to be used.** It may be a go-between that another system depends on. Test, test and test again.
- **Don't migrate instantly.** Run the old and new systems in parallel for a while. Allow users to migrate slowly.
- When you're about to switch to a new system, **include a rollback capability to switch back** to the old system quickly if necessary.
- **Don't just cut back on your use of an application;** get rid of it.
- For easier future pruning, **buy all similar types of equipment in a short period of time.** It's easier to manage changeovers when all the machines are the same.

–*Alan S Horowitz*

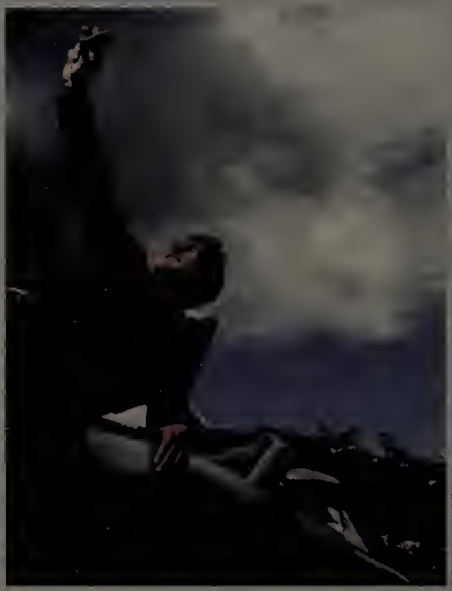
ThinkTank

BRAIN FOOD FOR IT EXECUTIVES

Camera Phones Become an IT Issue

CAMERA PHONES have been a huge success – IDC estimates that more than 600 million will be in use by 2007– because people can easily send and receive snapshots.

What does this have to do with corporate IT? Plenty, according to an article in Accenture Ltd.'s online journal *Outlook: Point of View.* Researchers Andrew Fano and Anatole Gershman at Accenture Technology Labs say that as people grow comfortable using camera phones, they'll begin to use them to interact with businesses. So customer contact centers will need to be able to handle incoming instant photos.



GETTY IMAGES

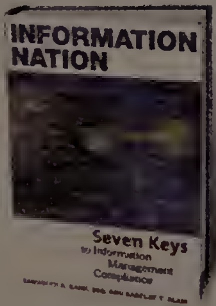
"Instead of trying to describe an object using words, consumers will send snapshots," the authors say, which will give a service agent a better idea of the customer's needs. A customer can send a picture of the environment in which the product will be used, such as a yard, room, office or workshop, which can help the service agent sell the right products. A series of photos (or a short video) could even capture how a customer is using or assembling a product, so the agent could correct or train the customer on the proper procedure. Consumers could also use camera phones to document damage or repairs.

But managing this influx of images will require "a substantial redesign of customer service processes and systems," the researchers predict. *– Mitch Betts*

Best Bits

The most useful parts of recent business and IT management books

THE BOOK: Information Nation: Seven Keys to Information Management Compliance, by Randolph A. Kahn and Barclay T. Blair (AIIM, 2004).



I'm not sure about the appropriateness of the title *Information Nation*, but this is an eye-opening book about the legal issues of information and e-mail management. Did you know that a voicemail message from a federal regulator could be a vital record that should be preserved? Did you know that an instant message about a business contract might need to be retained for legal purposes? Before your eyes glaze over at the word *legal*, consider that allegations of records destruction, mismanagement and falsification have brought down huge corporations like Enron and Andersen. And that's why we have Section 802 of the Sarbanes-Oxley Act, which states: "Whoever knowingly alters, destroys, mutilates, conceals, covers up, falsifies or makes a false entry in any record . . . with the intent to . . . obstruct [a federal investigation] . . . shall be fined, imprisoned not more than 20 years, or both."

Suddenly, records management seems important!

This book is a practical guide — full of checklists and sample policies — to help keep your company out of hot water. And that seems like something a chief *information* officer ought to do.

— Mitch Betts

Too Many Chiefs?

Chief financial officers are fine. So are chief legal officers and chief administrative officers. But some companies are going too far by adding more CXOs to the organizational chart, says David Silverstein, president and CEO of Breakthrough Management Group Inc. in Longmont, Colo. He draws the line at the trend toward having a chief risk officer and a chief ethics officer. Those roles should be squarely on the shoulders of the CEO, Silverstein says, because delegating them to another chief sends bad signals to employees and shareholders.

What about the CIO? Silverstein says the IT chief is here to stay and will become even more important as the CIO evolves to become the "systems architect of the business" and the "master of information flows." **48239**

Data Decay

Here's why you need a data cleansing effort. On a typical morning between 9 and 11 o'clock:

- [illegible] firms will move
- 57[illegible] businesses will change their phone numbers
- [illegible] companies will change their names
- [illegible] businesses will shut down
- [illegible] firms will file a bankruptcy petition
- [illegible] company will change ownership

SOURCE: D&B SALES & MARKETING S[illegible] [illegible] THE DUN & BRADSTREET CORP. [illegible] SHORT HILLS, N.J.

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The IT Economy

■ IT s[illegible] according to [illegible] [illegible] 200[illegible] [illegible]

Ups and Downs

[illegible]

GAINING

1. [illegible]
2. Cognizant [illegible] Solutions Corp.
3. Wipro Ltd.
4. [illegible]

LOSING

1. Accenture Ltd.
2. Electronic Data Systems Corp.
3. Computer Sciences Corp.

[illegible]

Security Plans

[illegible]

Antivirus	60%
Firewall	47%
Monitoring	45%
Intrusion detection	38%
Identity management	24%
Biometrics	11%

[illegible]

Career Watch

NUMBERS WORTH NOTING

Four out of 10 companies expect to increase hiring between now and the end of the year, according to a June 2004 survey of 104 member companies conducted by the National Association for Business Economics.

Six out of 10 CEOs say their companies don't account for workforce aging in their long-term business plans, according to the Society for Human Resource Management.

The fastest-growing segment of the workforce is the 55-to-64-year-old segment, according to the U.S. Bureau of Labor Statistics. The number of workers between 35 and 44 years old is declining by 10% annually.

The 25-to-34-year-old segment of workers is growing at 8% annually, according to the Bureau of Labor Statistics.

Linda Beck

TITLE: Executive vice president, operations

COMPANY: EarthLink Inc., Atlanta

WHAT SHE DOES:

Q&A

Over the course of her 20-year career in IT, Linda Beck, who started out as a computer programmer and now holds the top-ranking IT post at EarthLink, has been an avid mentor to other women in IT careers. Women, she says, make natural and standout managers in technology organizations because of their much-practiced communication and people skills. Prior to joining EarthLink, Beck managed engineering and technology organizations at Sybase Inc., GTE Corp. and Amdahl Corp.

Statistics show that women are less attracted than men to IT careers. Why is that? When choosing a major in college, a lot of women look just at the entry-level positions [available after graduation]. They don't see past software engineering and coding and sitting at a computer all day to the more interesting IT roles, such as project manager, where you interact with people.

How can CIOs and IT recruiters attract more women to IT careers? By changing the nature of entry-level jobs. A lot of companies post programmer and network engineer positions as entry-level jobs and assume that all management opportunities will grow out of these jobs. If you think more creatively about how you put together career paths, you can come up with different entry points, like associate project manager, and other roles that are more appealing to women at the entry level.

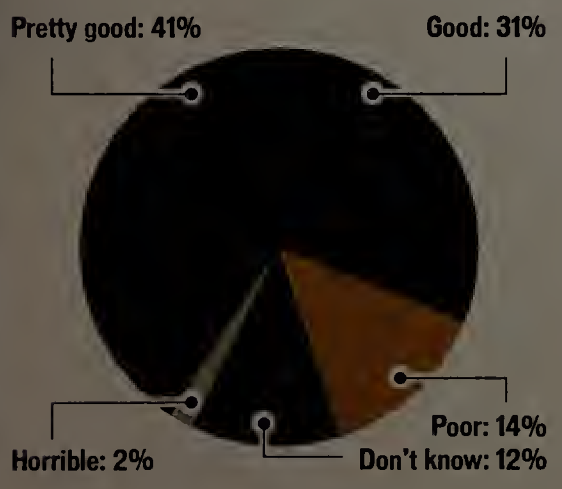
Are you saying that women prefer IT roles that involve more communication and interaction? That was certainly the way I felt. I started out in a programming role where I wasn't interacting with anyone or anything but a computer. I didn't enjoy that. I liked it much better when I moved on to more coordination- and integration-oriented roles. I think women do a better job in a lot of the technology management roles because those roles require good communication, mediation and facilitation skills, and lots of women do all of these things all of their lives in their families.

What's your advice to women who are looking to move up in their IT careers? Don't have really rigid expectations about how your career path should progress. Migrate toward the things you're good at and volunteer to do them. I volunteered for jobs nobody else wanted, like integration jobs, and I moved up from there. I found it pretty easy to move up because there is such a shortage of people in very technical positions who want to manage and are good at managing. There's also a confidence thing. Women, in their communication style, tend not to take credit for things. In IT, a lot of times you're the only woman in the room and you have to be confident in what you're saying and not be intimidated. **48230**

– Julia King

CIOs and CFOs: Can We Talk?

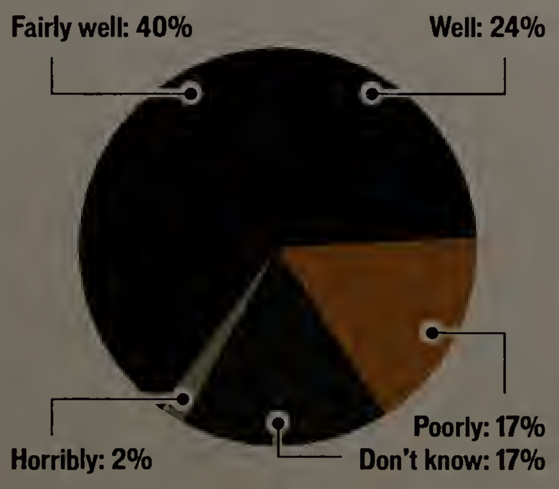
How would you describe the communication between your CIO and/or CTO and your company's CFO?



Base: 157 U.S. executives

SOURCE: CUTTER CONSORTIUM, ARLINGTON, MASS., JULY 2004

How well does your CIO/CTO sell technology projects to financial managers?

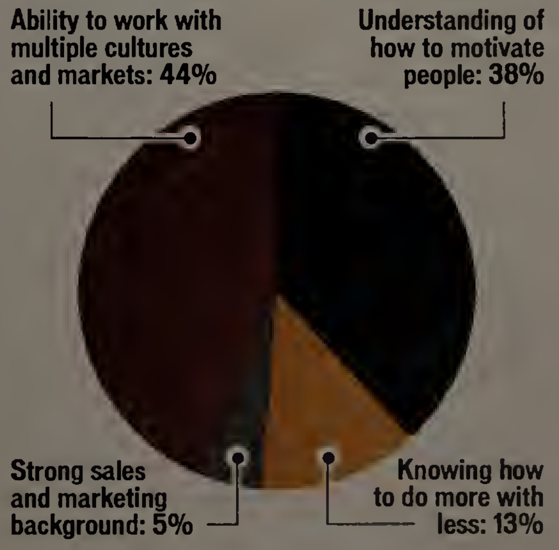


Base: 157 U.S. executives

SOURCE: CUTTER CONSORTIUM, JULY 2004

Exec Talent Search

What will be the most important attribute needed for an executive to be successful over the next five years?



Base: 332 business students from leading colleges

SOURCE: CLARKE CONSULTING, SOUTH SAN FRANCISCO, MAY 2004

EXEC TRACK

St. John Joins 3Com Board

JULIE ST. JOHN has joined 3Com Corp.'s board of directors. She will also serve on the company's audit and finance committee. St. John is currently executive vice president and CIO for the Enterprise Systems and Operations division at Washington-based Fannie Mae. Marlboro, Mass.-based 3Com makes voice and data networking products.

CA Names Kern CIO, Senior VP

KEVIN KERN has been named senior vice president and CIO at software maker Computer Associates International Inc. in Islandia, N.Y. Kern is responsible for CA's global IT, including systems and applications, data centers, internal help desks and desktop support. He previously served as vice president for managed services design and delivery at Hewlett-Packard Co. and before that was CIO for Compaq Computer Corp.'s Europe, Middle East and Africa organization.

Rainmaker Taps Schork to Lead IT

LARRY W. SCHORK has joined Rainmaker Systems Inc. as vice president of technology. Previously, Schork was vice president and general manager of IT at Loudcloud Inc. and CIO at Metricom Inc. and Rational Software Corp. Scotts Valley, Calif.-based Rainmaker provides outsourced sales and marketing services.

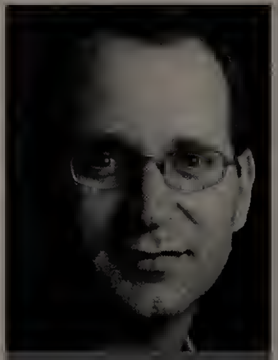
Vetrano to Head Cosi IT Operation

JOE VETRANO will join Cosi Inc., a New York-based restaurant chain, as vice president for IT. He will be responsible for aligning Cosi's IT infrastructure with its growth plans for both corporate and restaurant systems. Previously, he served as CIO at S.C. Johnson & Son Inc.

PAUL GLEN

Questions Trump Answers

INFORMATION TECHNOLOGY people tend to be answer people. When users, managers, family members or even random people from the Internet have questions, we're right there with the answers, because we're always the smart people.



PAUL GLEN is an IT management consultant in Los Angeles and the author of the award-winning book *Leading Geeks How to Manage and Lead the People Who Deliver Technology* (Jossey-Bass Pfeiffer, 2003; *www.leadinggeeks.com*). He can be reached at **info@c2-consulting.com.**

One of the first things we learn in school is that being smart means having the answers. The teacher asks the class a question, and the smart kids reach for the sky. But just having a hand in the air isn't enough. To become known as the smartest of the smart, you've got to get that hand up faster than anyone else. It's the original arms race. (We all know how popular this made us.)

And that lesson gets reinforced throughout life. The questions keep coming, and we are rewarded for answering correctly. There are quizzes, exams, word problems, standardized achievement tests, PSATs, SATs, GMATs and job interviews — each one reinforcing the notion that being smart means answering correctly.

Eventually, we enter the workforce, and when the boss asks, we answer. Our peers query, and we reply. The better our responses, the better our raises, the more impressive our titles and the more sincere the admiration of our peers.

But as often happens, those things that we do to get ahead eventually fail to serve us well. What makes us successful at one level limits our progress at the next. So it is with questions. At some point, just answering them is insufficient to make collective projects successful and individual careers soar. This happens for a couple of key reasons.

As we move higher in the organization, we begin to grapple with questions that have no correct answers. Being smart isn't enough. It becomes more important to evaluate the validity of competing responses than to find a correct one.

But beyond that, it's even more important to find the right questions than it is to find the best answers. Great answers to unimportant questions are still unimportant.

Successful groups grapple with important questions, not trivial ones. IT projects and organizations are very sensitive to the quality of the questions that are asked. If the questions you examine are even slightly less important than the ones you should be considering, your results may be dramatically poorer than you might expect.

Many IT projects remind me of one of my favorite scenes from the old Pink Panther movies that starred Peter Sellers as the bumbling Inspector Clouseau. At one point in *The Pink Panther Strikes Again*, Clouseau sees a small dog and asks the nearby hotel clerk, "Does your dog bite?"

"No," replies the clerk.

Clouseau bends down to pet the pooch and is immediately bitten by the snarling mutt. Clearly upset, he turns to the clerk and exclaims, "I thought you said your dog did not bite!"

"That is not my dog," the clerk replies dryly. Accurate responses to the wrong questions often lead us astray.

Every project begins with a series of unanswered questions. So how do you know if you're doing a good job with yours? Here are a few of my rules:

1. Prioritize your questions. Not every question requires or deserves a response. Ask and grapple with the most important ones first. Good risk management demands that you handle the most threatening things first, and fundamental questions are usually more important than nitpicky, detailed ones.

2. *Why* questions should precede *what, how, who* and *when* questions. If you look at your priority list of open questions and most of the top ones start with words other than *why*, you may be starting at the wrong place. Never assume that you know why a project is important. Way too many projects deliver great technical solutions to low-priority problems just because someone requested it and no one asked why.

3. If your questions come with multiple-choice answers, make sure you have included a complete array of choices. One of the most powerful ways to control a conversation and limit creativity is to pose multiple-choice questions with constrained responses. When we see a menu, we naturally assume that it includes all possible choices. Rarely is that true.

If you want to further your career and make your organization more successful, start thinking more about asking good questions rather than offering great answers. Your influence will expand, and you can demonstrate something more important than smarts. You can display wisdom.

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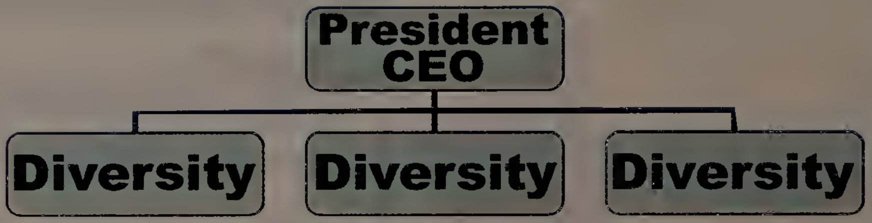
Advertising Supplement

IT Careers: Best Companies for Blacks in Technology

This is the first in a two-part series about organizations chosen for the Black Data Processing Association's Best Companies for Blacks in Technology Survey. The top-ranked company will be named this week during the BDPA's national convention. IT Careers will continue the discussion on Sept. 13 with Best Companies and vision of the future – for the workforce and technology profession.



Black Data Processing Association reports that there are 300,000 African Americans in the technology profession. Knowing where black technology professionals are succeeding and why is one of the BDPA's top goals.

Milt Haynes, former BDPA national president and chairman of this year's awards program, says the organization examines statistical data for hiring, retention, professional and leadership development, and promotions of African-Americans when identifying the top companies. Selected for 2004 and announced this week at BDPA's national convention are Allstate, Blackwell Consulting, Delta Technology (a division of Delta Air Lines), HSBC Technology and Services (formerly Household International), Marriott and Merck.

In its second year, Haynes said the survey was more thorough and competitive than a year ago. "The companies have taken the time to dig deep and provide thorough information," he says. "The major challenges remain the same – building the number of African Americans in senior management ranks and supplier diversity."

"Companies now have a bogey – they know where the bar is. We have people in place to share best practices with companies who are serious about making improvements."

The Best Companies share some common approaches to creating an environment that supports professional development and growth. Common efforts include affinity groups or networks, mentoring and coaching, and continuous learning in technology, leadership and business. "Diversity is not an event," says George Hall, senior vice president of Information Resources Human Resources at Marriott. The IR group headcount has dropped by 14% in the tough economy for the hospitality industry; at the same time, minority representation actually increased by 5%.

Marriott along with other companies operating globally noted the diversity that exists throughout their operations – numbers of countries where located, number of languages being spoken and ethnicity represented. The effort involves ensuring opportunity for black employees, but also for all employees. "Blackwell looks diverse," says Pamela Blackwell, president and chief operating officer at Blackwell Consulting. "We want Blackwell to be the best for people in general."

As with Blackwell Consulting, HSBC focuses on being a place where people get ahead by doing good work. "We're an organization where you can prove yourself," says Mike Woodward, vice president of human resources.

Alonzo Howell, director of revenue pipeline for Delta Technology, says the biggest change in the past five years for his organization is the number of African Americans who are in senior positions – managers, directors and vice presidents. "We've seen tremendous growth at that level," he says, pointing to Shirley Bridges, the senior vice president for operations, as an example.

At Allstate, Dr. Robin R. Richmond, assistant vice president for protection technology, says one of the most important initiatives undertaken by the insuror in being a Best Company is to work closely with its BDPA chapter to bring technology to the community – allowing BDPA members to develop leadership and influence skills that can then be used in their own careers. Now, the company is looking at its data and future goals – including leadership development for an organization that is comprised of 60% women and 29% minorities.

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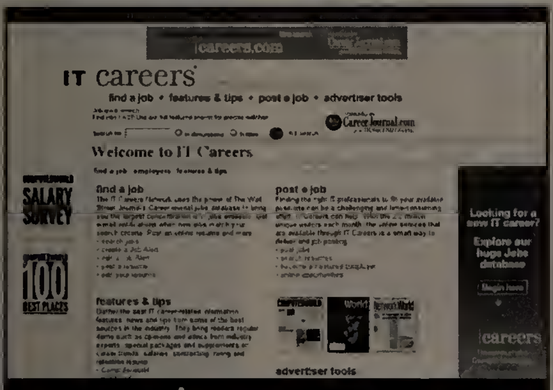
Programmer/Analyst (Illinois loc.) B.S. Comp Sci, MIS or rel. field + 1yr exp prog. w/VB, SQL & Crystal Reports; 1yr exp web dvlpg w/.Net. Send resumes to Pankaj Monga, 2633 Fleur Drive, Des Moines, IA 50321.

Intellambda Systems, Inc. an optical networking company, seeks Engineering Managers for Fremont, CA location. Send resume to Recruiting, Intellambda Systems, Inc., 46417 Landing Parkway, Fremont, CA 94538.



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IT PROFESSIONALS

Manager

(Glen Mills, Pennsylvania and other locations throughout the U.S.). Oversee the design and implementation of custom, technology enabled business solutions. Function as integrators between business needs and technology solutions. Develop creative analyses to diagnose client issues. Actively participate in complex proposal development and sales presentations. Provide consulting services for implementation, testing, development, maintenance and enhancement of software packages and applications. Manage Enterprise Application Integration (EAI) projects involving integration of Siebel Customer Relationship Management (CRM), SAP and Oracle Enterprise Resource Planning (ERP), and legacy applications using middleware products such as Tibco and Vitria. Delegate tasks to team members and ensure timely delivery and quality of the tasks. Review the performance of team members, as well as train and mentor them. Prepare technical design and architecture specifications using System Analysis and Design, Object Oriented Design and EAI design. Test and deploy strategy of the integration of middleware components. Manage the design and testing of custom integration solutions on Unix and Windows platforms using Java, C++, C, SQL, and databases such as Oracle and Informix. Create project plan and manage the delivery schedule of projects.

The wage offered is $101,000 per year. The work schedule is Monday-Friday, 9:00 am to 5:00 pm. The position requires a Bachelor's degree or equivalent in Computer Science, Business Admin, Engineering (any type), Math, Information Systems + 5 years of experience in the job offered or 5 years of experience as a Sr. Consultant, Consultant, Systems Analyst, or Software Engineer. Related experience must include a minimum of six months of experience in Enterprise Resource Planning (ERP), Enterprise Application Integration (EAI), Oracle, C++, C, JAVA, Informix, UNIX, Windows platforms, Systems Analysis and Design, Object Oriented Design, and SQL.

Please send your resume, referencing Job Order Number **WEB438697** to the: PA Careerlink, FLC Unit, 235 W. Chelten Avenue, Philadelphia, PA 19144. EOE.

Software Engineers needed. MS/BS or equiv. and rel. work exp. Part of the rel. exp. should include 2 yrs working w/ system admin. & computer networking. Knowledge of medical terminology preferred. Duties include: Design, develop, test & implement info. management systems; Define system scope & objectives; Prepare program specifications; Manage in house network, exchange server, & application server. Work w/ NT Server, Windows 2000, Unix, & CISCO. Send resume, ref., and sal. req. to Ellkay LLC, 62 West Lawn Drive, Teaneck, NJ 07666.

Sr. System Analysts to lead teams to analyze, design appls using C, Java, XML, HTML, Java Script, Oracle, etc. under Unix/Windows OS; tune appls for better performance; interact with clients and end users for reqs gathering; perform project planning, scoping and scheduling; provide technical/business guidance for complex user problems; study and evaluate new methodologies/tech. Require a B.S. or foreign equivalent in CS/Engg (any branch) with 3 yrs exp in IT. High salary. F/T. Travel involved. Resume to: HR, Unilinx, Inc., 4625, Alexander Dr., Ste110, Alpharetta, GA 30022.

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Email resume to careers@callcarrera.com or Mail resume to: Mr. Fred J. Tips III, Carrera Communications L.P., 211-A Brooklyn Ave., San Antonio, TX 78215.

Computer Professionals
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Software Engineer/ Sys.Analyst/ Programmer Analyst/DBAMust have bachelor degree or equivalent and experienca in some of the following: C/C++/VC++, MFC, VB, ASP, Visual Interdev, .NET, Java, XML, COM, DCOM, Corba; Databases (Sybase / SQL Server/ Oracle / Informix / MS Access / DB2); ERP/CRM (Oracle, Peoplesoft, SAP, Siebel), ABAP4; E-commerce (CGI, Perl, UNIX Shell Scripting); Datawarehousing Tools (Cognos/ Informatica/ETL/Business Objects); in Windows and/or UNIX and/or Linux operating systems. Must be able to travel or relocate nationwide. Send Resume to: HR Manager, Quintegra Solutions, Inc., 790 E Market St, Suite # 380, West Chester, PA19382. (No Walk Ins).

SYSTEMS ENGINEER, Frankfort, KY; Design, code, test, debug, develop, maintain and implement computer systems and multi-tier applications using ASP, HTML, Style Sheets, J2EE, VB.Net, IIS Webserver, Websphere, MS Visio, ERWin/ TKPROF, PL/SQL, Oracle and MS SQL RDBMS on Windows operating system. Develop and maintain high priority, new information technology and complex computer systems. Set up development standard for development team. Provide technical support. Reqd. 2 yrs exp in job offered or 2 yrs exp as a Programmer Analyst. 37.5hrs/ wk, 8:00am-4:30pm, Mon-Fri, $55,000/yr. "EQUAL OPPORTUNITY EMPLOYER". Must have a proof of legal authority to work in U.S. Submit resumes to: Ginny Burton #4078, Department of Employment Services, 275 E. Main Street, 2-WA, Frankfort, Kentucky 40621.

Infobahn Technologies delivers innovative IT Solutions to business clients nationwide. We have immediate full time opportunities for Software Engineers. All applicants must have a minimum BS in Computer Science Engineering or Related field plus 2 years of experience. Send resumes to: Infobahn Technologies, (HR) 288 Walnut St. #410 Newton, MA 02460.

Programmer Analyst to analyze, design, develop, test, debug, implement, maintain and/ or enhance HR technical programs for HR SAP system in accordance with business unit objective and goals. Provide technical development and support for both Employee Self Service (ESS) and Management Self Service (MSS) modules of SAP HR. Provide on call support for HR/Payroll SAP system and mainframe interfaces. 40 hrs. per wk., 8:00a.m. - 5:00p.m., $80,000 per year. Bachelor's Degree or Equivalent in Computer Science Engineering or related field with two years of experience in the position or, in the alternative, four years of experience in the position or related positions. Position located in Juno Beach, Florida. Send resume only to: Agency for Workforce Innovation, P.O. Box 10869, Tallahassee, Florida 32302. Re: Job Order No. FL-2533290.

DATABASE ADMIN. - Coord. & apply physical changes to computer databases. Req'd: MS in CS or Mgmt Info. Sys., fluency in Turkish, & exp. w/ Oracle, MS SQL Server, MS Access & HTML. Resumes: Mezun.com, 3500 Boston Street, Ste 322 Baltimore, MD 21224. Attn: L. Herron.

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E-mail: ISDADS@wal-mart.com

For more information, visit our Web site at:
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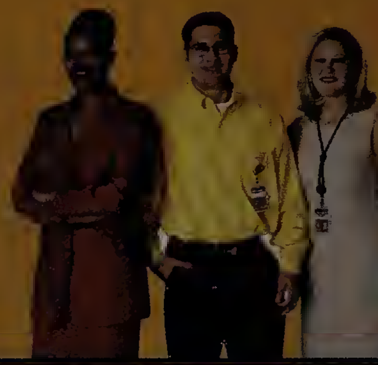

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Computer - Multiple SAP / Integration Programmer Analyst openings. Req. BS in CS, IT, Engg or related, and min. 2 years work exp. in design, configuration, development, modification, integration, testing, documentation, training & support of multi-module R/3, CRM, APO and/or BW solutions for large companies. Resume to NexLink Systems, 100 Franklin Sq Dr, Ste 101, Somerset, NJ 08873.

Computer Systems Analyst
eToys Direct seeks applicants for the position of Computer Systems Analyst (Supply Chain Developer) in Denver, CO to design and develop custom supply chain software applications. Requirements include bachelor's degree in computer science, information technology or related field and experience designing and developing supply chain software applications and working knowledge of Visual Basic, PL/SQL, SQL/Server and Oracle. Respond by resume to Gigi Healy, eToys Direct, 1099 18th St., #1800, Denver, CO 80202.

Computer Database Administrator

Interactive digital information services company. Send resume to Kelley Brun @ NXTV, Inc. 5955 De Soto Ave., #160, Woodland Hills, CA 91367 www.nxtv.com or jobs@nxtv.com

Senior Computer Engineer wanted to work at R&D dept. to research, design and develop symbolic based functional test generator applications and develop bus functional models, and related duties by using various computer systems and hardware description language. MS in Computer Science or Electrical Eng., and 1 year related experience required. Send resume to Avery Design Systems, Inc., 2 Atwood Lane, Andover, MA 01810.

Medical Records Administrator sought by prof'l benefits administration Co to manage, dsgn & process med d/base & sup doc. Bach or equiv/or comb. edu + exp. Comp Sal. Exp reqd. Resume to: Interactive Medical Systems, 5621 Departure Dr, Ste 117, Raleigh, NC 27616 fax 919-877-0615

Senior Systems Engineer – InterContinental Hotels Group is seeking qualified applicants for positions at the company's North American headquarters in Atlanta. Position responsibilities include administering and supporting various distributed platforms (i.e., TPF, MVS, Unix, NT). Requires relevant degree and experience. Apply to Francene Taylor, Six Continents Hotels, Inc., Three Ravinia Drive, Suite 100, Atlanta, Georgia 30346.

SAP Consultants needed. Waltham MA based company has positions available for qualified candidates possessing MS or equivalent with 3-5 years of work experience with SAP ABAP, EDI/Idoc and Functional SD. The duties include Design, develop, implement and customize SAP applications for various business clients. Maintain applications, trouble shoot and provide technical, business, customer and management support. Configure R/3 & performance tuning of the application. Mail resume to Iconsoft Inc. 751 Main Street Suite 9 Waltham MA 02451.

Assoc. Software Engineer, Broomfield, CO: Design, develop, unit test user interface components of company products using HTML, VBScript, JavaScript, Java & XML. Min. req.: BA Comp. Sci, Info. Sys., or other w/minor or emphasis in Comp. Sci. or Info. Sys. M-F, 8 a.m. - 5 p.m. 46k/yr. Need proof of legal authority to work in the U.S. Apply by resume only to Workforce Development Programs, P.O. Box 46547, Denver, CO 80202. Refer to job order #CO5086036.

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IT PROFESSIONALS
Manager

(Glen Mills, Pennsylvania and other locations throughout the U.S.). Formulate and define systems strategy and objectives for engagements. Provide consulting services for implementation, testing, development, maintenance and enhancement of software packages and applications utilizing Object Oriented Analysis Development (OOAD), Apache Tomcat Server IBM MQ Series and SAP Interfaces, and accompanying development tools and environments such as Rational Rose. Facilitate design sessions and assist client's technical architects with the technical design documents (TDDs) utilizing Rational Unified Process and Rational Rose. Create the high level design for Tivoli monitoring, as well as configure and install Tivoli Monitoring utilizing IBM Tivoli Framework. Create test plan and XML test cases for client update functionality environment including BEA WebLogic Server. Will be responsible for directing systems analysts and programmers on engagements and ensuring quality control. Provide consulting services to assist clients in designing and implementing custom, technology-enabled business in different environments such as IBM Mainframe environment COBOL, DB2, CICS and JCL.

The wage offered is $101,000 per year. The work schedule is Monday-Friday, 9:00 am to 5:00 pm. The position requires a Bachelor's degree in Computer Science, Math, Business Admin, Engineering (any type), Information Systems + 4 years of experience in the job offered or 4 years of experience as a Senior Consultant, Consultant, or Software Engineer. Related experience must include at least 1 year of experience with Application Development tools: (SAP Interfaces, BEA WebLogic Server, Apache Tomcat Server and Object Oriented Analysis Development (OOAD)) Methodologies: (Rational Unified Process and Rational Rose); Application Integration Tools (IBM MQ Series) System Monitoring Tools: (IBM Tivoli); Environments: (IBM Mainframe environment: COBOL, DB2, CICS and JCL).

Please send your resume, referencing Job Order Number **WEB438711** to the: PA Careerlink, FLC Unit, 235 W. Chelten Avenue, Philadelphia, PA 19144. EOE.

Sr. Software Engineer wanted to manage the dvlpmt., scalability, efficient operation & growth of prof. dvlpmt. tech. projects at the local & regional levels. Must have Bach. deg. in Comp. Sci., or related field & 3 yrs. of exper. managing software design & dvlpmt. projects for web-based apps., incl. exper. designing & implementing Soft-Grid apps. w/ Java & J2EE. Please send resume to Craig V. Brenner, Pres., EduCatalyst, Inc., 16R North St., Hingham, MA 02043.

Computer: Software Engineers, Programmer Analysts, System Analyst, for Kansas based IT firm. Bachelor + 1 year experience for Junior Level positions and Master + 2 years or Bachelor + 5 years of experience for Senior Level position. Skill required: Oracle, VB, Cognos, PL/SQL, SWL*Plus, JDBC, RMI, JFC, Swing Java Beans, C/C++, Windows NT/2000, UNIX, Shell Scripting, Websphere, TOAD, ASP, XML, Rational Rose, Business Objects, Peoplesoft, SAP, ABAP, Microstrategy and Informatic. Apply with 2 copies of resume to HRD, KMD Global L.L.C., 1000 West, 75th St., Suite 200, Shawnee, KS 66204.

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IT consulting firm located in Vermont has multiple openings for programmer analysts to serve multiple clients throughout the U.S. Job duties include: Analysis, design, development and testing of computer applications. Specific skill sets needed include:

- Mainframe developers with experience in COBOL, DB2, SQL, IMS DB, Easytrieve, and QMF
- .Net developers
- Java/J2EE developers
- Peoplesoft Developers
- Datawarehouse Developers
- QA Testers
- ERP Consultants - Oracle/Peoplesoft/SAP

Send resumes with salary requirement to: vt@iTechUS.com. Applicants must have authority to work permanently in the U.S.

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Science

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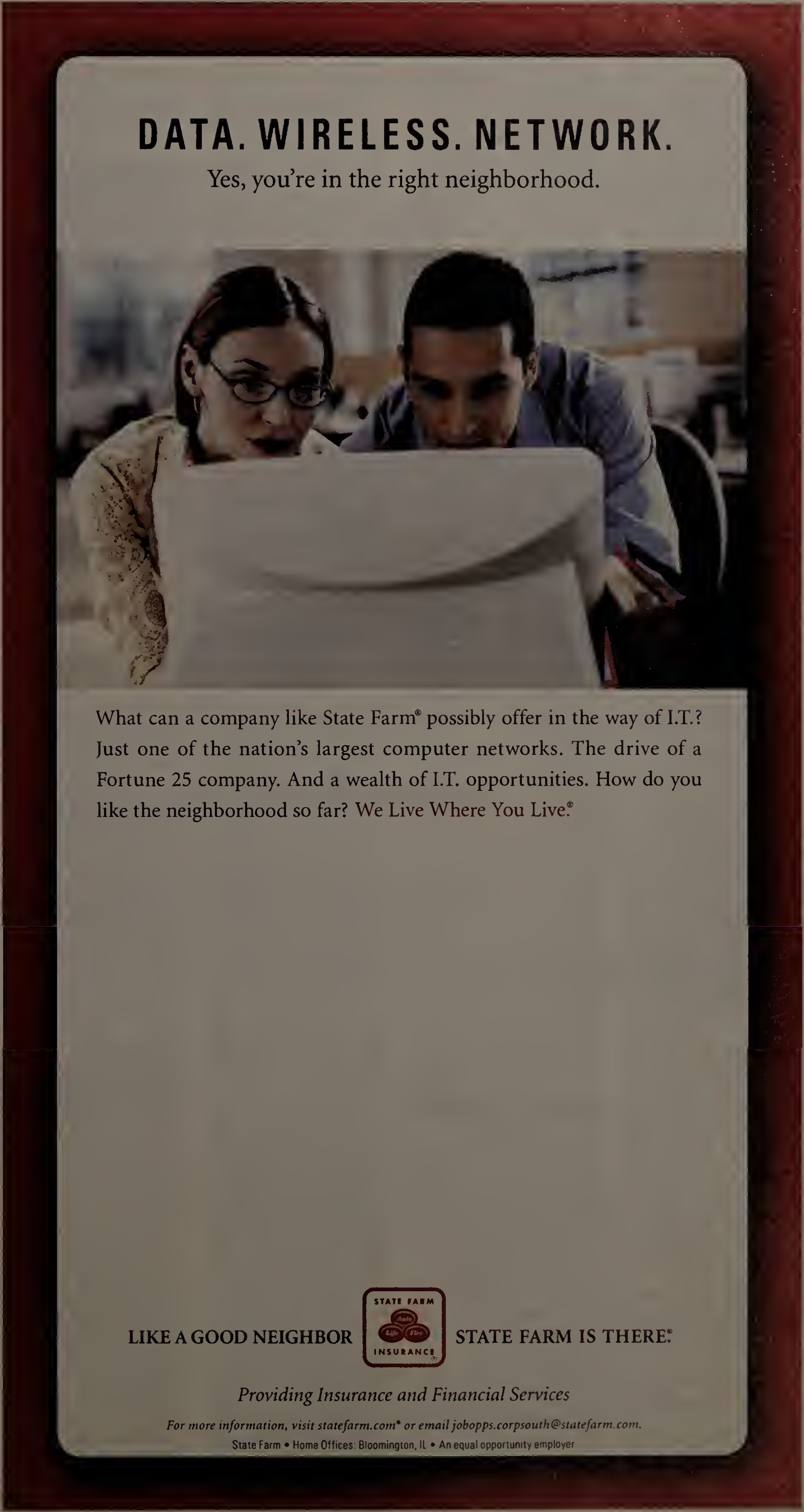
Philips Medical Systems North America has an opening for the position of Clinical Scientist, MR Clinical Education to be based out of our Norcross, GA location. The candidate will be responsible for following published Customer Training Checklist using company recommendation operational protocols in the delivery of end-user training while adhering to company initial quality policies. Assessing user competency and administer the national accreditation program in the field. Working closely with service and image quality teams to resolve image quality issues and provide answers and solutions to customers. Assisting Clinical Education Training Specialists and managers with projects such as trade shows, distance learning, web casts, offsite training, facilitating, trainer training, new hire training, accreditation process, and technical tip review. Assessing and documenting the customer's level of overall satisfaction with equipment performance and clinical results. Reporting unresolved problems to manager and other individuals as required. Providing complete, accurate, informative and timely trip reports and travel expense reports. Contributing subject matter (clinical protocols sample images and technical tips), sharing knowledge and assisting Clinical Education. Travel to customer sites to train end users in the effective/efficient use of specific equipment within the MRI product segment. Assessing/evaluating clinical performance of equipment upon arrival at customer site. Assisting with resolution of any minor operational performance issues with appropriate support. The candidate must possess at least a Master degree or foreign degree equivalent in Physics, Biomedical Engineering, or related fields, plus three years of experience in MRI research. Coursework or experience must include; (1) brain anatomy, function and physiology; (2) Cardiac anatomy and physiology; (3) fMRI (including data acquisition, processing, statistics, image analysis software, and VMS/UNIX/LINUX) and spectroscopy; (4) high field MRI (1.5T, 3T, 4T); (5) clinical applications and exp in running MRI experiments in a clinical setting using in-depth knowledge of MR physics. To learn more and to apply online, please visit:
www.careers.philips.com
and reference the Job ID # 16214 EOE.

MEDICAL

St. Jude Medical, located in Sylmar, has an opportunity for a Sr. Software Engineer. For immediate consideration, please Email your resume to: jwortsman@sjm.com. EEO/AA.

Systems Analyst sought by Computer Consulting Co. Bachelor's in Comp Sci or Eng, or foreign equivalent, or a combination of education and work exp. equal to a U.S. Bachelor's degree, plus 2 yrs. exp. inc. ERWin and Teradata are required. Resumes to UPP Business Systems, 3075 Highland Pkwy #730, Downers Grove, IL 60515.



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Large bank holding company, headquartered in Tennessee seeks experienced Programmer Analyst III. Will be responsible for all aspects of PeopleSoft HRMS and Financials project activities as well as ongoing production support needs. This position will function as an application developer and integrator working through all aspects of the application development life cycle and work as part of a team utilizing standard PeopleSoft development processes, tools, and architecture. Will perform complex analysis, design, development, testing, implementation, documentation and problem solving of client server applications and technology components. Requires effective interaction with customers and developers to ensure the successful delivery and implementation of PeopleSoft updates and modifications to the production environment. Will also be responsible for troubleshooting and correcting application errors. Bachelor's degree in Computer Science or equivalent education and exp. Requires 2 years related experience including experience in business application design ,development and development. Strong technical, analytical and problem identification/resolution skills with an extensive software development and requirements definition background. Detailed knowledge and experience with PeopleSoft 8x HRMS (HR, Benefits Administration, Payroll, eRecruit) and as PeopleTools I & II, PeopleCode, Application Engine, SQR, SQL, Work Flow/Business Process Design, nVision, Crystal Reports and Unix in an Oracle environment. Knowledge of PeopleSoft technical architecture and tools required. Candidate must be self-motivated and results oriented. Annual salary is $84,203 and includes competitive benefits package. Only persons with authorization to work in the U.S. need to apply. EEO. Submit resume and three references to: Shelly Muhammad, Sr. Corporate Paralegal, Union Planters Bank. 7130 Goodlett Farms Pkwy., Cordova, TN 38016.

Systems Management Professional; Miramar, FL. Responsible for change management support regarding software changes to Mainframe, Internet and Distributed Change Platforms. Coordinate and manage changes for applications for the global billing process. Utilize working knowledge of Mainframes, Distributed, and Web Platforms and provide global support for change management implementation and support. Provide leadership assistance and train junior analysts. Utilize DB2, Jobscan, Jobtrac, and JCL language. Bachelor's Degree or equivalent in Information Technology or Computer Science and one (1) year of experience in the job offered or one (1) year of experience in the related occupations of Systems Manager or Analyst. Employer will accept five (5) years of experience In the I/T field as meeting the degree requirement. $63,647.15 per year. 40 hours per week, 8:30 am-5:00 pm. Please send resumes to Job Order number FL-2532368, Workforce Program Support, P.O. Box 10869, Tallahassee, FL 32302-0869.

Senior Software Developer - For cardiovascular/diabetes information management systems. Send resume to Lumedx, 3655 131st Ave. SE, Bellevue, WA 98006. EOE.

PeopleSoft Oracle Database Admin (Aurora, CO): Will support of the PeopleSoft ("PS") Financials/HRMS appl dbs. Installing software, supporting dbs operations, and dvlp'g/maintaining complex dbs for optimum efficiency, performance and tuning. Manage data backups, and recovery processes. Create/maintain PS app servers, process Scheduler server and Web servers on NT and Unix servers. Install/support administration of Oracle 9i/8i and MS SQL Server 2000 dbs on UNIX, NetApps SAN and Windows 2000. Install/configure PS 8.x (HRMS, Financial) Unicode/Non-Unicode portal app, Cobol compilers, Crystal reports, SQR, Tuxedo, Weblogic, Apache and Internet Architecture for North America and Asia. Respons. for the performance/tuning of Tuxedo App Servers, Weblogic and setup, configuration of App Server for Failover, Load balancing, and Stress Testing. Duties include, performance, tuning and maint. of productions/development/testing of SQL Server and Oracle dbs for various appl's (PS, Yardi, Touch Paper, XRT, etc.) and patches/fixes to PS and Oracle dbs. Dvlp dbs backup recovery strategies. Develop UNIX shell scripts for dbs backup/recovery strategies. Install/config Oracle Management Server. Work w/ developers to tune SQR's, TS-QL, PL/SQL modules and SQL queries. Dvlp packages, procedures, functions and triggers. Perform Data Modeling using Oracle designer, Erwin tools. Ensure documentation of PS domains and Oracle dbs. M - F, 8 - 5PM, $67,500/yr. Min. Req's: Bachelor's degree, or equiv, in Statistics, Mathematics, Comp Sci or a related field. 6 yrs exp in the position offered or 6 yrs exp in the related occupation of PeopleSoft Oracle Progr/Sys Analyst. Ref: JC. Pls forward credentials to: HR, Prologis Management Inc., 14100 E. 35th Place, Aurora, CO 80011-1618. EOE. MFDV.

Programmer-Analyst II for West Des Moines, IA to plan/analyze/design/develop/test/document computer programs; apply knowledge of programming techniques and comp systems; evaluate user request for new/modified programs; consult w/users to ID current operating procedures; clarify program objectives; enter program codes into comp system; analyze/review/alter program to increase operating efficiency. Must have Bachelor's degree or eqv and 3 mon in job/job related exp. Exp. must include work w/web app dev and testing, GUI design & implementation, Fireworks, Homesite, Dreamweaver, HTML, JavaScript, CSS, J2EE, JSP, Servlet, JDBC, Java, WSAD 5.0, WAS 5.0, SQL, DB2, XML, XSLT, MVC, Struts 1.0.2 and 1.1, OO A&D, Design Patterns, UML. Please submit an application or resume indicating this specific position title and job# IG-Z Mail or fax resume with salary requirements to our Central office at: Attn: Human Resources Job # IG-Z, West Des Moines, IA. Fax 515-453-8118

Programmer Analyst for Tallahassee, FL. Bachelors or equivalent degree in CS/ENG/MIS, 2 years experience in the offered or related field. 2 Yrs experience to include IBM Mainframe, VSAM, JCL, COBOL, EASYTRIEVE. Please forward resumes to Workforce Program Support, PO Box 10869, Tallahassee, FL 32302-0869.

Senior Business Systems Analyst to analyze various components of a business remittance process system to improve the performance and productivity related to the automated processing of checks and other forms of receipts through a Buffalo lockbox or similar secured repository. Modifies software to adapt system for automated check redeposit in a NCR 7780 environment, processing of suspense checks in a TMS Image environment, and automated customer account debits or credits resulting from redeposit of checks or incorrect recording of check amount by development of ICR/Bar Code recognition parameters and image recognition enhancement. Develops appropriate data interface with IBM mainframe and coordinates system to transmit data and problem check resolution processes to appropriate business units. Uses Delphi 5.0, Pervasive SQL, Mitek Quick Strokes, Mitek Doctus and other system tools to increase character recognition, image exporting, and interfacing of DP 500/1150, IBML, and SC60H transports as scanning/document Image. Job Location: Schaumburg, IL. Requires Bachelor's Degree in Computer Science or Computer Science and Engineering and two years direct experience. Send resumes only, no calls, to: Cathy Hoch, Human Resources Officer, HSBC Bank USA/Household International, Inc., Attn: International Human Resources, One HSBC Center, 25/F, Buffalo, NY 14203.

Sr. Customer Support Consultant

Under lmtd superv, facilitate impl. of SAP R/3 sw auto of bus. Process & its CO md solution by prov spprt to custmrs at DB migratin, pre-launch tstng & go-live phases of R/3 impl prjcts. Prov expert constng to assist custmrs w/ costing process mods, bneck anlys & tech app perf. tuning; in/face w/ R/3 div to imprv existing svcs & products; mentor r. team members; teach R/3 courses to trainers & consltnts & prep train mats. Use expert knwldge of R/3 Basis systm & SEM md; 50% trvl to client sites. Job Loc: Newtown Sqr, PA. Req: MS in CS, B Admin or rel fld + 2 yrs in sw support. Empl will accept BS in same acad flds + 2 eddl yrs exp in user supprt & bus process defin for R/3 impl for automtn of fin bus process in lieu of req'd MS. 40 Hrs/wk; $54,652/yr. Submit resume addressing spec reqs w/ad copy to PA CareerLink, FLC Unit, RE: WEB 432893, 235 W. Chelten Ave, Phil, PA 19144. EMP PD AD. Proof of auth to wrk in U.S. req if hired. EOE.

Sr Systems Analyst (Aurora, CO): Maintain existing HR/Benefits/Payroll systems running on PeopleSoft in an Oracle environment. Dvlp new applications, interfaces and reports, as necessary. Upgrade existing systems as Appl is upgraded by PeopleSoft to keep existing system in support by vendor. Prep gap analysis, impact analysis, design, writing functional and tech analysis document and coding of the software. Work closely w/users to solve functional and tech problems. Ensure proper documentation of procedures, monitor outcomes, and demonstrate support for ProLogis' strategic goals thru flexibility and appropriate flow of info. Responsible for A/P & Travel Expense modules. M-F, 8-5pm, $65,000/yr. Min Req's: Bachelor's degree or equiv in Comp Sci or Comp. Eng'g. 4 yrs exp in position offered or 4 yrs exp in related occupation of Sys Admin/ Progr Analyst . Ref: JC. Pls forward credentials to: HR, Prologis Management Inc., 14100 E. 35th Place, Aurore, CO 80011-1618. EOE. MFDV.

Linc Software, a leading S/W Services Company offering expertise in IBM iSeries (formerly AS/400) development services has openings for various entry/mid level IT positions - Prog/Systems Analysts, Project Mgr/Leaders, S/W Engr./Cons., using the following skill sets: RPG/400, RPG/ILE, COBOL/400, DB2, AS/SET, Java, WebSphere, LANSA AD, LANSA for the Webs, Visual LANSA, Microsoft .Net technologies, PASCAL, Domino/Notes etc. Positions also available using the following skill sets for Tech./Comp. Support Specialists, Tec/Func. Consultant: Implementation and Support Experience on BPCS, JDE (World & One World), MAPICS, MOVEX. Rel. degree or its equiv. in exp. is req'd. Experience, a plus. Freq. travel/relocation involved. Please fax resumes with reference IT1 to Attn: HR Department, Fax # 908-769-9999 or e-mail at usa@lincsoftware.com.

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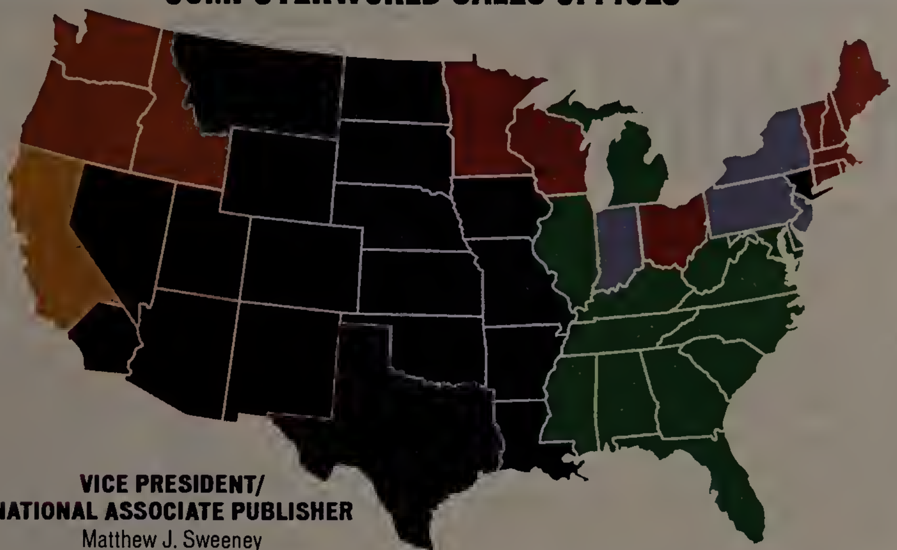

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Dean, Other Dems Sound Off on E-voting Security

BY PAUL ROBERTS
BOSTON

FORMER Vermont governor and onetime presidential hopeful Howard Dean joined fellow Democrats at their party's national convention here last week to spotlight the need for secure voting systems that can be audited.

Dean joined Rep. Rush Holt (D-N.J.) and others at a news conference to draw attention to a plank in the Democratic Party's 2004 platform that calls for voting systems to be "accessible, independently auditable, accurate and secure." The Democrats took the occasion to excoriate Republicans in Congress and state governments who have blocked legislation mandating a paper trail for votes cast using electronic voting machines.

NEWSCOM/G. FABIAN/SIPA PRESS

HOWARD DEAN says unsecure e-voting systems could undermine democracy in the U.S.

"We can spend millions on security; surely we can do just as much to safeguard the central piece of representative government — the voting process," Holt said.

Dean said he initially heard about security problems with e-voting machines while running for the Democratic nomination and dismissed the complaints as coming from "conspiracy whackos." A closer look convinced Dean of the seriousness of the issues, which he said threaten to undermine democracy in the U.S. if left unaddressed.

"If people don't think votes count, the first thing they'll do is stop voting. And when people stop voting, elected officials will stop caring about [them]," he said.

In perhaps the most impassioned presentation, Rep. Marcy Kaptur (D-Ohio) railed against resistance within Ohio's Republican-dominated state government and at the federal level to address the issue of voting security. She said that the Bush administration has underfunded or ignored key elements of the Help Americans Vote Act of 2002, which set aside almost $4 billion for states to replace outdated voting machines.

In addition, many state elections officials misunderstood the provisions of that law and rushed to buy expensive e-voting machines pushed by vendors like Diebold Inc. before concerns about security could be addressed, she argued.

Under Pressure

Mercer County, N.J., Executive Brian Hughes seconded many of Kaptur's points, saying that his county faced tremendous pressure from e-voting vendor Sequoia Voting Systems in Oakland, Calif., to purchase systems by the end of 2003. He noted that the county still hasn't received updates to the systems to produce voter-verifiable paper receipts, which the county agreed to pay for.

"[Sequoia] had local lobbyists working for them, and they were offering us hundreds of thousands of dollars in discounts to close by the end of 2003," he said.

To confront vote-tallying problems, Kaptur said, Democrats in Ohio are preparing teams of legal and technology experts. They will act as "circuit riders" on Election Day to monitor voting and document reports of problems with voting or electronic voting machines, she said. **48518**

Roberts writes for the IDG News Service.

MORE E-VOTING INFO

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The focus of the e-voting debate shifts to reliability and accessibility:

QuickLink 48477
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DNC Security

tial security incidents, reports from the U.S. Secret Service and state law enforcement agencies and live video feeds from police helicopters and fixed cameras positioned around the city.

Peter Judge, a spokesman for the EOC, said representatives from more than 30 state and local agencies have been staffing the center around the clock since July 25. "We're able to handle and manage any DNC-related emergencies that cascade beyond downtown Boston," said Judge. "We're like the '411' for community emergency managers."

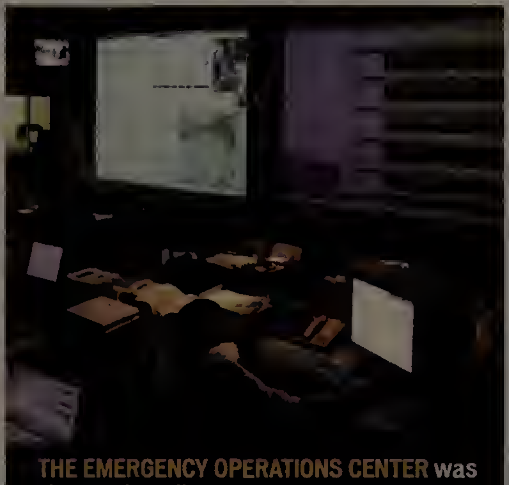
The convention marked the first time that the EOC included a representative from the Northeast Disaster Recovery Information X-Change (NEDRIX), a private-sector organization of more than 1,000 security and disaster recovery officials from businesses of all sizes throughout the Boston metropolitan area.

Companies can now report disturbances or security threats directly to the EOC, which can immediately dispatch the appropriate manpower to deal with the situation, said Chris Glebus, head of the public/private sector coordination committee of NEDRIX.

"Preparing for the convention has almost been like preparing for a mini-Y2k," said Glebus. "There's been six months of heavy preparation under way in the private sector, and we're still working on data protocols."

NEDRIX has rolled out a Web-enabled tool called EnvoyProfiles that allows corporate security executives to send and receive alerts and collaborate online, rather than having to rely on e-mail. And the EOC has deployed its own Web-enabled command-and-control application known as Web-EOC. The Web-EOC screen last week displayed reports of suspicious packages and rowdy protesters.

Johanna Meyer, the center's geographic information system manager, took reports streaming in through the Web-EOC application and plotted event locations on a large-screen map display powered by a 3TB image archive that officials have been building for the past six months. Protesters and march organizers who gathered on the streets of Boston were unaware that state police helicopters were feeding live digital video to the EOC. Their actions, and those of thousands of pedestrians and highway commuters, were captured by a multitude of fixed cameras that were linked to the EOC specifically for convention security operations.


DAN VERTON

THE EMERGENCY OPERATIONS CENTER was aglow with wall-mounted screens displaying data on potential security incidents, including video feeds from police helicopters.

"Behind every data layer is a full attribute table that has everything from facility ID number, map coordinates and locations of windows and exits that we can use to assist first responders," said Meyer.

Likewise, all of Boston's area hospitals have been linked into the EOC through a new application that got its first real test during the convention. Twice a day, hospitals automatically reported their status to the EOC.

And according to Nancy Ridley, the Massachusetts Department of Public Health's liaison to the EOC, "anything that can be counted" at area hospitals is monitored.

"This has been very helpful in our ability to tell in real time where we have surge capacity for medical emergencies," said Ridley. "We can tell how many ventilators a facility has or how much Cipro they have in stock and control the flow of ambulances."

EOC officials were clearly pleased with the performance of the systems. "The beauty of this," said David Martineau, the EOC's deputy operations chief, "is that it's usable technology — not technology for its own sake." **48523**

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FRANK HAYES ■ FRANKLY SPEAKING

E-mail Answers

I ASKED, YOU ANSWERED. A few weeks ago, I wrote about Tom Whittington, CIO for California's Contra Costa County, where a glitch in an e-mail address book sent hundreds of messages with confidential information to a company in Sweden over a two-year period [QuickLink 48030]. I asked what he — and the rest of us — can do to keep something like that from happening again. Readers responded with far too many good ideas to print in this space. Here's a sampling:

■ "We do not send sensitive data in e-mails. Instead, we save data in restricted-access folders on an internal server and send a link to the file in the e-mail. If the recipient of the e-mail is authorized to receive sensitive e-mails, he will already have the credentials required to access the folder."

■ "Some companies block all outbound attachments except to whitelisted organizations. It allows e-mail traffic, just not attachments."

■ "What Contra Costa County could have done was monitor all their outgoing mail with a program that scanned for keywords. They could have then embedded keywords in their Word and Excel documents that contained personal information."

■ "The easiest solution may be to tag nonsensitive e-mail at the source and disallow e-mail directed outside the private network that does not carry the requisite tag."

■ "1) Never send sensitive data via e-mail. 2) When you break Rule 1, encrypt the data. Any other system is broken by design, is it not?"

■ "What if Mr. Whittington established a policy and infrastructure to support the encryption/decryption in electronic communications? If someone sends sensitive data that is not encrypted and it gets misdirected, you now have a policy to deal with the event."

■ "Financial data and private employee information should never be sent through public e-mail without being encrypted. You can write procedures to automate the process in Perl on both Windows and Unix platforms, and you can probably do it in VBScript on Windows. The platform isn't the issue; it's a matter of thinking through a process instead of clicking through it."

■ "The financial information and personal information should have been sent as an attachment that was created in an application that can password-protect the information."

■ "The e-mail address architecture should have been set up differently. If the two-letter department abbreviations in e-mail addresses are eliminated, there is a smaller chance of e-mail being sent to an unintended recipient."

■ "If there's a technological solution, I'd be surprised. If I were Whittington, I'd be investigating why all the Swedish e-mails warning about the problem were ignored. Looks to me like a cultural issue: lots of employees thinking it's someone else's problem."

■ "All e-mails sent to addresses not on a whitelist could have a footer appended with an e-mail address and/or hyperlink for recipients to use if the e-mail was not intended for them. We should make it easy to report the problem to somebody who will actually attend to it."

■ "An outsourced account that I work with had a similar problem. We were sending status reports and various other items 24/7, and we didn't know there was a problem until we got a truckload of tickets with missing reports, files not e-mailed, etc. It turns out that the solution was to use only the server address book and ignore the local copy."

■ "I think the issue is the political environment. When the replies arrived, either the employees didn't know who to notify or they were afraid to say anything, or someone wanted power and control over IT. Unless you have witnessed it, you cannot even begin to comprehend the level of turf fighting that occurs in large governmental agencies, and it's not just with IT."

Thanks to you all for your ideas. They may not solve every e-mail-leak problem — but they give us all a better chance of keeping them from happening. 48488

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Thanks for All Your Help

Remote server goes down hard, and overheating appears to be the cause, reports a pilot fish on the scene. So a tech is dispatched to the remote site to replace the server's fan. "On-site, the tech finds the server in the middle of a room that's being renovated," fish says. "It's covered in plastic with duct tape around the bottom. Needless to say, the server is now the equivalent of a paper weight." Who wrapped it up this way? And why? tech asks a clerk. "We did it to protect your equipment," clerk says, "and to make sure it doesn't get any dust in it from the construction."

SHARK TANK

The Secret

User buttonholes this support pilot fish, asking if fish knows the secret of how to make the copy machine work. "He had inserted his paper into the top tray but couldn't figure out which button to press," says fish. "I politely pointed out that it was a laser printer and directed him to a real copy machine."

It's All in the Hips

It's the 1970s, and this Air Force base's mainframe computers get hard disks with a new technology: instead of one head per track, a single head that moves all over the disk. "But since the platters were so large, when the drive became fragmented, the units would shake like an unbalanced washing machine," says a pilot fish who was there. Defragmenting the drive – this vendor called it "squashing" back then – is the cure, but how do you know when it starts to need it? "They shipped us car-dashboard hula dolls to be placed on each drive," fish says. "When the doll's hips started shaking, it was time to squash. It sounds funny and cheap, but it worked!"

Yes, That Sure Could Be It

In the early days of PCs, this pilot fish supporting a university computer lab frequently has to help users who have damaged their floppy disks. One student keeps coming in time after time with disks that appear to have been completely erased, so fish asks how she handles the floppies. "I only carry them between here and work," she says. "I help out at the MRI lab at the hospital. Do you think that could be it?"

Aw, What Would They Use It For?

This local utility company installs a virtual private network to let execs, managers and after-hours on-call staff connect to company systems from home, says IT support pilot fish. "But if they forget their passwords, the IT support person has to drive to the office to reset it," fish says. "IT support personnel are not permitted to use the VPN. Go figure!"

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